THE FARMERS' CABINET,

Devoted to Agriculture, Horticulture, and Rural and Domestic Economy.

Vol. IV.—No. 6.] January 15, 1840. [Whole No. 60.

From Youatt's Treatise on Cattle.

The London Dairies.

The dairies of the metropolis are objects of much interest to the stranger and to the agriculturist. In pursuit of the object of this work, we travelled over the greater part of the United Kingdom; and although we often had no other recommendation than the simple statement of the purport of our journey, we met with very few cases of incivility or of unwillingness to give us the fullest information; but when we returned to our usual residence, and where we expected most facility in the attainment of our object, we will not say that the refusal to admit us was accompanied by rudeness, but the gate of the dairy remained closed. This was the case with our overgrown milk establishments. It was a species of illiberality on which we had not calculated; but it mattered little, for we had seen many of the smaller ones, and we could guess with tolerable accuracy at the difference of treatment in some points—indeed they had been already whispered to us, and we had besides a minute and accurate account of them in the Magazine of our friend Mr. Berry.

The number of cows kept for the purpose of supplying the inhabitants of the metropolis and its environs with milk is about 12,000. They are, with very few exceptions, of the short-horn breed—the Holderness or Yorkshire cow, and almost invariably with a cross of the improved Durham blood. The universal preference given to this breed by such a body of men, differing materially on many branches of the treatment of cattle, is perfectly satisfactory as to their value, and that on three distinct points.

First, as to the quantity of milk. This we need not press, for the enemies of the short-horns have never contested this point. There is no cow which pays so well for what she consumes in the quantity of milk that she returns.

This, however, is not all, though it may be the principal thing which enters into the calculation of the metropolitan dairyman.

The name of new milk has something very pleasant about it, but it is an article which rarely makes its appearance at the breakfast or tea table of the citizen. That which is got from the cow at night is put by until the morning, and the cream skimmed off, and then a little water being added, it is sold to the public as the morning's milk.—The real morning's milk is also put by and skimmed, and, being warmed a little, is sold as the evening's milk. This is the practice of most or all of the little dairymen who keep their half a dozen cows; and if this were all, and with these people it is nearly all, the public must not complain: the milk may be lowered by the warm water, but the lowering system is not carried to any great extent, for there is a pride among them that their milk shall be better than that of the merchants on a yet smaller scale, who purchase the article from the great dairies; and so it generally is. The milk goes from the yard of the great dairy into the possession of the itinerant dealers perfectly pure; what is done with it afterwards, and to what degree it is lowered and adulterated, is known only to these retail merchants.

The proprietor of the large dairy is also a dealer in cream to a considerable extent among these people; he is also a great manufacturer of butter, for he must have milk enough to answer every demand, and that demand is exceedingly fluctuating; then it is necessary that the quality of the milk should

be good, in order that he may turn the overplus to profitable account, in the form of cream or butter. The employment of the short-horn cow, in all the dairies, is a convincing proof that her milk is not so poor as some have described it to be.

It is the practice in most of the dairies to fatten the cow as soon as her milk becomes less than four quarts a day. They are rarely suffered to breed while in the dairyman's possession. The fact of their being so often changed is a proof that while the cow gives a remunerating quantity of milk for a certain time, she is rapidly and cheaply fattened for the butcher as soon as her milk is dry. Were much time or money employed in preparing her for the market, this system would not answer, and would not be so universally adopted. Fattening and milking properties can, therefore, combine in the same animal, and they do so here.

Mr. Laycock, however, does not adopt this as a general rule. The cows that are more than usually good milkers are suffered to take the bull when in season. He always keeps some good short-horn bulls for this purpose. It sometimes happens that the cow will continue to give milk until within a few weeks of calving; and he judges, and perhaps rightly, that this is a more profitable course than to fatten and get rid of her, with the probability that he might replace her by a cow that would give a less quantity of milk.

The present market price of a good dairy cow is about 20*l.*, but the owners of the small dairies have no little trouble to get a good cow. The jobbers know that they will have a ready market for a considerable portion of their lot in the yards of the great cow-proprietors, and will probably get a larger price than the poorer man would give; and therefore Messrs. Rhodes, or Laycock, or one or two others, have always the first selection. Mr. Laycock has peculiar advantages for obtaining good cattle. In addition to his dairy, he has sheds that will contain five or six thousand beasts. A great proportion of them halt on his premises for a day or two before they are brought into the market. In addition to the shilling a night which he charges for their standing, he claims the milk of the cows as his perquisite. The cows are milked by his people; he therefore knows beforehand the quantity of milk which each will yield, and he is thus enabled to cull the very best of the herd. The dairymen do not like a cow until she has had her third or fourth calf, and is five or six years old; she then yields the greatest quantity of milk, and of the best quality. Two gallons of milk per day is the quantity which each cow is expected to yield in order to be retained in the dairy. Taking one cow with another, the average quantity obtained is rather more than nine quarts.

When she begins to fail in her milk, she is fattened on oil-cake, grains, and cut clover hay, and disposed of. The dairyman calculates on getting something more for her than when he first bought her, but sometimes he meets with an animal that seems to verify the old prejudice against cows in good condition. He bought her for known milking-properties, but she continues so poor that he in a manner hides her in some corner of his dairy. She, however, does her duty; she yields him plenty of milk, but that at length dries up; and he is unable, try what he will, to get much flesh upon her bones, and he sells her for less than half of her first price.

The quantity of milk yielded by all these cows, at nine quarts per day, amounts to 39,420,000 quarts, or twenty-seven quarts of genuine milk for each individual. The retail dealers usually sell the milk for 4*d.* per quart, after the cream is separated from it, and then obtain 3*s.* per quart for the cream; beside this, a great deal of water is mixed with this skimmed milk: so that we far underrate the price when we calculate that the genuine milk sells at 6*d.* per quart, which makes the money expended in milk in the British metropolis amount to 985,500*l.* or nearly a million pounds per annum.

If we again divide the 985,500*l.* by 12,000, (the number of cows,) we shall have the strange and almost incredible sum of more than eighty-two pounds as the money produced by the milk of each cow. This is divided among a variety of persons, and after all affords but a scanty subsistence to many of them; but it unequivocally proves the rascality that pervades some of the departments of the concern.

We acquit the wholesale dealers of any share in the roguery, nor do we believe that their profits are exorbitant. They sell the milk to the retail dealers at a price that, according to Dr. Middleton, would enable them to clear sixty-four per cent., without adulterating the article—(we believe that fifty per cent. would be nearer the truth.) When we consider the nature of the business; the distance the milk-girls have to travel; and the time wasted in selling their little quantities from door to door, this profit is not too great; but when they abstract the cream, and add the water, and, unless they are much belied, some extraneous and abominable articles, the actual profits will far exceed cent. per cent. In the spring of the year when London is full, the consumption and the deterioration are greatest. In the latter part of the year the cream is converted into butter, and the butter-milk given to the hogs.

Rhode's diary has been established more than thirty years, but some of the same family or name have lived in that neighbourhood nearly a century. 'Mr. Rhodes, farmer, near Islington,' is referred to by Dr. Brocklesby, in his treatise on the murrain which prevailed among cattle about the middle of the last century. The writer of 'London Dairies,' in the 'British Farmer's Magazine' for February, 1831, gives a description of it, of which the following is the substance:—The surface on which the buildings are placed is a gentle slope of two or three acres, facing the east. The sheds run in the direction of the slope, as well for the drainage of the gutters as for the supply of water for drinking, which will thus run from trough to trough the whole length of the shed. The sheds are twenty-four feet wide; the side-walls being about eight feet high, with rising shutters for ventilation, and panes of glass let into iron frames for light. The floor is nearly flat, with a gutter along the centre, and a row of stalls, each seven feet and a half wide, along the sides, and adapted for two cows, which are attached by chains to a ring that runs upon an upright rod in the corner of the stalls. A trough or manger, of the ordinary size of those used for horses, is placed at the top of the stall. Four of these sheds are placed parallel and close to each other, and in the party-walls are openings a foot wide, and four feet high, opposite to each cow. The bottom of these openings is about nine inches higher than the upper surface of the troughs, and contains a one-foot square cast iron cistern, which contains the water for drinking; each cistern serves for two cows that are placed opposite to each other, but in different sheds; all these cisterns are supplied from one large tank. These cisterns have a wooden cover, which is put on while the cows are eating their grains, to prevent their drinking at that time, and tainting the water by dropping any of the grains into it. At the upper end and at one corner of this quadruple range of sheds is the dairy, consisting of three rooms, each about twelve feet square; the outer, or measuring-room—the middle, or scalding-room, with a fire-place and a boiler—and the inner, or milk and butter room.

At the lower end of the range is a square yard surrounded by sheds, some for fattening the cows when they have ceased to give milk, and the others for store and breeding pigs. The pigs are kept to consume the casual stock of skim milk which remains on hand, owing to the fluctuations of the demand. The milk is kept in a well, walled with brick laid in cement, about six feet in diameter, and twelve feet deep. The milk soon becomes sour there, but is then most nourishing to the hogs. Breeding swine is thought to be the most profitable, and the suckling pigs are sold for roasting.

Beyond this yard is a deep pit or pond, into which the dung is emptied. There is a stackyard, sheds, and pits for roots, straw, and hay; a place for cutting chaff, cart-sheds, stables, and every building which such an establishment can require. The number of cows varies from four to five hundred.

The treatment of the cows is singular in some respects. The cows are never untied while they are retained as milkers. Some of them have stood in the stall more than two years. Mr. Laycock, on the contrary, turns his cows out once every day to drink from troughs in the yard, and they remain out from half an hour to three hours, depending on the weather and the season of the year. From the end of June until Michaelmas, they are turned into the fields from six o'clock in the morning until twelve or one, and from two o'clock in the afternoon till about three o'clock on the following morning. Mr. Rhodes' cows have always water standing in the cisterns before them.

We can readily conceive that, from the want of exercise, and consequent cutaneous perspiration, Rhodes' cows may give a somewhat greater quantity of milk than Laycock's; but on the other hand, when we think of an animal tied in the corner of a stall for twelve, or eighteen, or twenty-four months together, we cannot help associating the idea of disease, or tendency to disease at least, with such an unnatural state of things; the feet and the digestive system would particularly suffer, and we should suspect a little vitiation of all the secretions, and some deterioration in the quality of the milk. We should like to know the comparative state of health of the animals in the two establishments. The inclination of our opinion would be strongly in favour of Mr. Laycock's plan.

The principal food of the cows in both of these, and in all the dairies of the metropolis, is grains; and as the brewing seasons are chiefly in autumn and spring, a stock of grains is generally laid in at those seasons for the rest of the year. The grains are laid up in pits, lined with brick-work set in cement, from ten to twenty feet deep, and of any convenient size. They are firmly trodden down, and covered with a layer of moist earth, eight or nine inches thick, to keep out the rain and frost in winter, and the heat in summer. A cow consumes about a bushel of these grains daily, the cost of which is from fourpence to fivepence, exclusive of carriage and preservation. The grains are, if possible, thrown into the pit while warm and in a state of fermentation, and they soon turn sour, but they are not liked the worse by cattle on that account; and the air being perfectly excluded,

the fermentation cannot run on to putrefaction. The dairymen say that the slow and slight degree of fermentation which goes on, tends to the greater developement of the saccharine and nutritive principle, and they will have as large a stock upon hand as they can afford, and not open the pits until they are compelled. It is not uncommon for two years to pass before a pit of grains is touched; and it is said that some have lain nine years, and been perfectly good at the expiration of that period. The dairyman, however, must know his brewer, and be able to depend on him. The grains from a large ale brewery are the most nourishing. Those from the porter brewery are not so good; and those from the little brewers, who first draw off their ale, and afterwards extract every particle of nutriment in the formation of table beer, are scarcely worth having.

Each cow is allowed a portion of salt. In Rhodes' establishment it is given with the grains. Laycock salts his rick when it is first made—a most excellent plan, for the hay is not only effectually secured from becoming mow-burnt or mouldy, but it is rendered more grateful to the animal, and we may venture to say, almost doubly nourishing, from the developement of the saccharine principle. It is to be doubted, however, whether the cows obtain a sufficient quantity of salt in this way. Some should be given with the grains.

The grains are usually given about three o'clock in the morning, and two o'clock in the afternoon, being a little before the usual milking hours. Between the milkings they have green meat, as long as the season will permit. Cut grass is a favourite and excellent food; but where it can be managed, the plan of Mr. Laycock to let the cows cut the grass for themselves is a far superior one. Tares come in before the grass, and are afterwards given alternately with it. In winter, turneps, potatoes, and mangel wurtzel, are given as long as they can be obtained at any reasonable price; and then the dairyman is driven to hay or chaff: the superiority of chaff is now generally allowed.

Both of these gentlemen fatten off their dry cows with grains, oil-cake, and clover chaff, to which Mr. Laycock adds boiled linseed. Our readers may recollect the experiments made by the Duke of Bedford on the fattening quality of linseed, boiled and unboiled, and in which the simple unboiled linseed fattened the animals more expeditiously than any cooked preparation of that seed. Mr. Laycock boils the linseed in a common boiler, and when reduced to a pulp, conveys it by tubes into large wooden cisterns, where it is mixed with clover chaff roughly cut, and sometimes with grains.

These wholesale dairymen usually agree with the retail dealers, that they (the dealers) shall milk the cows. The dealer knows the quantity of milk that he wants, and the dairyman knowing the usual quantity of milk yielded by each cow, calculates what number of cows will meet the demand, and the retail dealer attends at three o'clock in the morning and two in the afternoon, to milk these cows. He carries it into the measuring room, where its precise quantity is ascertained. If, as cows often vary considerably in their flow of milk in the course of two or three days, he has milked more than his quantity, it is put into a vessel belonging to the dairyman; or if the cows should not have given their usual supply, the deficiency is made up from the dairyman's vessel. The milk which is left on hand is put into shallow vessels, the cream skimmed and made into butter, and the skimmed-milk thrown into the pit for the hogs.

The joint-stock dairies which a few years ago sprung up in such abundance, have either ceased to exist, or the number of cows much diminished, have fallen into private hands. While there were many partners, and the business was controlled by a committee of persons who knew nothing at all about the matter, they all proved to be lamentable failures. Some of them, even in the hands of private individuals, who brought with them little or no experience, were sadly ruinous concerns. The Metropolitan dairy was a striking illustration of this; but now, under the management of those who have been drilled into the business, it is doing better.

From the Farmers' Register.

Mode of preparing Land for Ruta Baga. Yield of Three Acres.

Middletown, Monmouth Co., N. J.
November 12th, 1839.

Dear Sir—In your October No., there is an article on the culture and cost of three acres of ruta baga, copied from the Monthly Visitor, published in New Hampshire, which I read with considerable interest as I do all other communications having reference to the progress of root culture, that important auxiliary to successful farming. In fact, the writer is perfectly convinced from many years experience and observation, that no plan or system of agriculture can be complete without roots forming a very prominent part in the rotation; and the time will come, though now apparently distant, when not only Virginia, but all the eastern states will be independant of the western country for their supply of beef cattle. It is possible, however, that the American farmers, who are so sensibly alive to every principle of self-interest, may obtain a complete knowledge of the cul-

tivation, and proper and economical use of this invaluable root, much sooner than many people expect, who have made the subject a part of their study. Independantly, however, of the farmers individually comprehending this matter, it is essential also, that the labourers should understand, and by practice, properly and directly at the first, become expert with the hoe, and in singling out the young plants without even for a moment thinking of touching them with their fingers, however close they may be in the row. In entering into a consideration of the expense stated to have been incurred (one hundred and thirty days at a cost of $98,) in the culture of three acres of turneps, I must confess that I never was so much at fault in my life, in being unable to comprehend how it was possible so large an outlay of labour could have been devoted to that object. It is presumed that in New Hampshire, hoes have not, as yet, found their way, but that the good farmers there proceed on the principle that "fingers were made before forks," and have used them where the hoe, plough or drill ought to have been exclusively made use of. Besides, something is said about making out the land in squares, and shaking over each intersection, seeds contained in a box, two or three in a place, transplanting where they failed to come up, &c., altogether a bundle of absurdities and perfectly contemptible, were it not that this was the first attempt on the part of the New Hampshire farmer, to raise a crop, (in which he appears to have been eminently successful,) of the root of all roots, notwithstanding President Muse's famous recorded declaration that they are "utterly worthless, composed chiefly of fibrous matter, a *simple hydrate of wood.*" O! what a sentiment for the president of an agricultural society to deliver! To be charitable, however, it is inferred that he never saw a crop of turneps which had been sown in proper season. From this digression I will proceed to say, that I never saw any thing more than half a crop of any root obtained by dibbling, or what is the same thing, dropping seeds here and there; and early observed that the principle was wrong, and the practice productive of nothing but disappointment of a very grievous nature. Whoever is parsimonious in seed, particularly turnep seed, or beets for field crops, will reap his just reward. One pound of the former, and four of the latter, is the proper quantity which the drill in use on this farm will distribute with the utmost precision, the plants standing in the row, on an average, half an inch from each other. But why have them so thick? That is a question which has been put to me a hundred times. The answer has invariably been: You cannot obtain a *full plant in their proper places*, except there are a superabundance of them to enable you to make a proper selection when they are hoed to their proper distance. But, there is yet another argument in favour of thick sowing. An attentive observer of the turnep crop will remark a vast disparity in the general appearance of the plants as regards strength, and of their fitness to remain, four days after they are up. How can this circumstance be accounted for. Certainly not, that some seeds are more favourably situated than others, as respects germination, &c., for it is found that plants in close affinity, present the same striking contrast, and may be noticed every where along the rows. Is it constitutional in seeds, as in animals to produce weak and strong of their kind? The writer has long thought so, from the result of several experiments he has made with different seeds, particularly the turnep, and uniformly arriving at the same conclusions, that one-fourth are unfit to be retained to stand for a crop. Hence, the importance of a liberal allowance of seed. Should the foregoing reasoning on this peculiar character of seeds be deemed by you of any importance, a further elucidation from so competent a source, would be interesting and useful. In harvesting a crop of turneps, that plan is best which admits of the least handling, the operator taking hold of them with the left hand and with a strong knife in the other, trim off the fibrous roots, and top them while yet in his hand, throwing them into the furrow, placing three or four rows together, for the greater convenience of loading. It is deemed advisable to top and tail no more than can be secured the same day, choosing dry windy weather for the business. To keep them through the winter, the plan adopted on this farm is the same as the one practised by the New Hampshire farmer, and is the very best that can possibly be devised.

In feeding turneps, my space will only admit of my stating generally that all animals except calves prefer them in their whole state. As a matter of precaution, the small ones ought to be preserved for the hogs, or cut up for the calves and yearlings, excepting there is kept on the farm an implement for dislodging potatoes or turneps from the throats of animals. It is labour misapplied, to cut or mangle roots in any form. What a business it would be to pass through a vegetable cutter the daily allowance of a thousand sheep and fifty bullocks! Animals eat them as we do apples, bite off bit by bit, with exquisite relish. What, not slice them a little for the poor little sheep? No! Positively injurious to do so. Neither for the hogs, no matter the size, the larger the better. Twenty hogs are generally wintered on this farm

exclusively on this root, with a daily allowance, as near as can be guessed, of ten pounds each, increasing to twelve as spring advances. No corn or grain of any description is given.

The preceding remarks are hastily thrown together for the benefit of those whom they may interest, but more particularly for the perusal of Virginia farmers, and for the author of the communication which has drawn them out.

In conclusion, a brief statement is given of the expenses incurred by the writer the present season, in cultivating three acres of Swede turneps, and presuming 2100 bushels to be the produce, a comparative statement may then be found.

DR.

Interest on land, $100 per acre, -	$18 00
Twice ploughing three acres, -	6 00
Harrowing do. - -	1 00
Seed, - - - - -	2 00
Ridging, two furrows thrown together, the tops of ridges three feet apart, one day, - - - -	1 00
Drilling the seed, and rolling with a light roller, taking two rows, one day, - - - - -	1 00
When the plants have six leaves, ploughed from the ridge a light furrow each side, going as near as possible with a one horse plough, one day, - - -	1 00
Setting out the plants to ten and twelve inches apart; this operation must not be delayed five days,	5 00
Hoeing tops of the ridges effectually at the same time, then return the furrow each side carefully; and presuming the work well done, there will be no weed alive,	1 00
In three weeks, governed by the condition of the land, run the cultivators one bout through the intervals, - - - - -	50
Then with the hand hoe, go over again, cutting out here and there weeds that have escaped former hoeings, - - - - -	50
In a few days plough out the middles, which will close the account for cultivation, one day, - -	1 00
If any more work is requisite, pass the cultivator through the intervals. The harvesting of a crop of 2100 bushels, would occupy four men and two teams three days, say $1 each, board and wages, - - - - -	12 00
	$50 00

CR.

2100 bushels turneps at ten cents, all they are worth for feeding,	$210 00	
Profit, - - -		160 00
		$210 00

Cost of production in New Hampshire, $128, in New Jersey $50, difference, $78.

Referring to my farm journal, for a series of years, the whole cost of production has never exceeded four and a half cents per bushel. William Bowker.

The following is extracted from the lamented Judge Buel's late work, enlitled, "*The Farmer's Companion, or Essays on the Principles and Practice of American Husbandry.*" It will be read with interest, as one of the last productions of his pen upon his favourite subject, agriculture.

Some of the Principles of the New Husbandry.

The new system of husbandry is based upon the belief, that our lands will not wear out, or become exhausted of their fertility, if they are judiciously managed; but, on the contrary, that they may be made progressively to increase in product,—in rewards to the husbandman, and in benefits to society, at least for some time to come. It regards the soil as a gift of the beneficent Creator, in which we hold but a life estate, and which, like our free institutions, we are bound to transmit, UNIMPAIRED, to posterity.

The principles of the new husbandry teach, that the soil is the great laboratory for converting dead into living matters—the useless into the useful—manure into plants—plants into animal food: That plants, like animals, are organized beings; that is, they live, grow, and require food for their sustenance—have organs to take in food, to elaborate it, to transmit it through their systems—organs of sexual intercourse, of reproduction, &c., all acting together to one end: That plants cannot, any more than animals, live upon mere air, or earthy matters, as clay, sand, and lime, but that they require, for their growth and perfection, animal and vegetable matters: That the effect of growing and carrying off the ground successive crops, is to exhaust the vegetable food in the soil; and that continued cropping will ultimately render it barren and unproductive, unless we return to it some equivalent for what we carry off.

The principles of the new husbandry also teach, that by carefully saving, and suitably applying, all the fertilizing matters afforded by the farm; by an alternation or change of crops, and by artificially accelerating or retarding the agency of heat, moisture, air, and light, in the process of vegetable growth; by draining, manuring, ploughing, harrow-

ing, hoeing, &c., we may preserve, unimpaired, the natural fertility of our soils;—and that with the aid of improved implements of husbandry, and a good system of management, we may also greatly increase the profits of its culture.

These principles do not rest upon mere theory. They have been long reduced to practice, thoroughly tested, and their correctness amply verified. They have, in their practical application, virtually converted Flanders into a garden, and rendered it so fertile in human food, that each acre is said to be capable of supporting its man. The system which these principles inculcate, has changed Scotland, in a little more than half a century, from comparative sterility and unproductiveness, into one of the richest and most profitable agricultural districts in Europe. It has increased the products of the corn harvest, in Great Britain, in sixty years, from 170 to 340 millions of bushels. It has doubled, trebled, and quadrupled the agricultural products of many districts in our own country. It has augmented the value of farms, in some of these districts, two, three, and four hundred per cent.—from twenty and thirty dollars, to one hundred dollars and more per acre. It has made every acre of arable land, upon which it has been practised ten years, and lying contiguous to navigable waters or a good market, worth at least one hundred dollars, for agricultural purposes.

We will state some cases of comparison, between the products of the old and new system of farming, to illustrate more fully the advantages of the latter.

The average products of Flanders are stated by Radcliffe as follows: wheat thirty-two bushels, rye thirty-two and a quarter, oats fifty-two, potatoes three hundred and fifty, per acre. Flanders has generally a flat surface, with a light, sandy soil, illy adapted to wheat. It is naturally very similar to the sandy district upon the sea-coast in New Jersey, Maryland, and the sandy plains in the valley of the Connecticut.

In the fertile districts of Scotland, according to Sir John Sinclair, and in propitious seasons, "the farmer may confidently expect to reap, from thirty-two to forty bushels of wheat; from forty-two to fifty bushels of barley; from fifty-two to sixty-four bushels of oats, and from twenty-eight to thirty-two bushels of beans, per statute acre. As to green crops, thirty tons of turneps, three tons of clover, and from eight to ten of potatoes, per statute acre, may be confidently relied on. In favourable seasons, the crops are still more abundant." Professor Lowe gives the average products of Scotch Husbandry somewhat lower than the above. It is to be remembered, that, sixty years ago, the average was probably not one quarter so much as it is now.

Loudon states the average product of wheat in England, at twenty-four, twenty-eight, and thirty-two bushels per acre—mean average twenty-six bushels.

The preceding references are made to old-settled countries—to lands which have been under culture for many centuries—to lands which were once worn out by bad husbandry, but which have been renovated and rendered highly productive by the new system.

In 1790, General Washington, in a letter to Arthur Young, computed the average crop in Pennsylvania, then one of the best wheat-growing States, as follows:—wheat fifteen bushels, rye twenty, barley twenty-five, oats thirty, Indian corn twenty-five, potatoes seventy-five. Mr. Strickland, who resided in Maryland about forty years ago, in a report which he made to the British Board of Agriculture, gave the average product of our wheat crop at twelve bushels the acre, and of Dutchess county, then, as now, our best cultivated county, at sixteen bushels.

Bordley, about the period we are referring to, stated the average yield of Indian corn, on the Eastern Shore of Maryland, at fifteen bushels per acre.

These quotations are sufficient to show, that in our old-improved districts, the crops do not in any wise compare with those grown in Flanders, Scotland, and England,—and this difference in product is owing entirely to the different modes of managing the soil; for wherever the new system has had a fair trial among us, it has been as successful as it has been in Europe.

We will illustrate still further the difference between the two systems, by stating the products, or their value, on the same lands, under the old and under the new system of husbandry.

We are furnished, in Rees's Cyclopedia, with many statements, demonstrating the superiority of the new over the old system. We will quote some of them. The first comparison is made on a farm devoted to grazing, breeding, and tillage, of three hundred and fourteen acres, in Yorkshire. Under the old mode of husbandry, the net profits amounted to £316 10s.; under the new system the same lands gave a net profit of £596, making a difference of £278, or nearly one hundred per cent., in favour of the new system. The second is that of a tillage farm of one hundred and thirty-nine acres in Lincolnshire. Under the old system the profits were £130—under the new £452; difference in favour of the latter £322, or 250 per cent. The third statement exhibits the profits of an acre of land, being the medium of a farm of several hundred acres, in Yorkshire, for six years.

Under the old system the profit was £1 9s. 3d. —under the new £17 6s. 9d.—an increase of more than 1100 per cent. The medium value of the acreable profit in England is stated at from twenty-seven to thirty-six dollars per annum.

We have spoken of Mr. Coke as one of the best farmers of the age. He owns a large estate in Norfolk, England, a portion of which he has been personally improving for half a century, the residue being occupied by tenants. The rental upon his estate has risen, in fifty years, in consequence of the improvement in husbandry which he has introduced, from £5,000 to £40,000.

The Hoffwyl Agricultural School farm, in Switzerland, under M. Fellenburgh, comprises two hundred and fourteen acres. Lord Brougham, after visiting this farm, and making inquiries of the Principal, says he found the average annual profit of the pattern-farm alone, for a period of four years, amounted to £886 sterling, equal to about $4,000, exclusive of the cattle concern, which is kept separate.

The last case we will cite abroad, is that of the farm belonging to the Agricultural School of Moegelin, in Prussia, under Doctor Von Thaer. The school was established in 1809. In twelve years the value of the farm was increased from 2,000 to 12,000 rix dollars, by the improved mode of cultivating it.

The cases we have quoted, we admit to be extraordinary ones; yet they are not without parallels in our own country. Agriculture has been in a state of progressive improvement in the valley of the Hudson, for thirty or forty years. The lands have been increasing in value in consequence. The change has been so great in some districts, that farms which twenty years ago were sold for twenty to twenty-five dollars an acre, have recently been sold for one hundred to one hundred and twenty dollars an acre; and in other cases, particularly on Kinderhook plains, farms which were bought thirty years ago at five and ten dollars an acre, have lately commanded sixty and seventy dollars. Few farms of tolerable land in Dutchess, Orange, or other river counties, contiguous to the Hudson, can now be bought at less than from one hundred to one hundred and fifty dollars an acre, in consequence of their increased productiveness, caused by improved husbandry.

Doctor Black has demonstrated, in his prize essay, published in the American Farmer, that every acre of arable land in New Jersey, which now sells at from ten to thirty dollars per acre, is intrinsically worth five hundred dollars per acre; that is, if put under a judicious system of husbandry, every acre may be made to yield a net profit of thirty dollars per annum, equal to the interest on five hundred dollars, at six per cent. And Mr. Johnson, of Maryland, in a speech which he made in Congress in 1837, cites a case in Delaware, near Dover, where land was bought, a few years ago, of medium quality, at thirty dollars an acre, by Messrs. Sipple and Pennewell, which has paid in its product for all outlay in improvement, and the owners are now receiving, in the farm crops which it gives, an annual clear income equal to the interest of *five hundred dollars an acre.*

We will offer but one other illustration in support of the great superiority of the new husbandry. It is that of John Robinson, Esq., an intelligent and industrious Scotch farmer. Fifteen years ago, Mr. Robinson bought a farm on the banks of Seneca Lake, three miles from Geneva, at ten dollars an acre. The farm was considered *worn out.* Mr. Robinson, with the aid of sheep, lime, manure, and good husbandry, has made it produce, over and above the expense of culture, and the support of his family, an annual income equal to the interest of one hundred and fifty dollars an acre,—and the farm is still in a state of progressive improvement. The income from four hundred acres is now $4,000. Mr. Robinson has refused $100 per acre for the whole.

We might multiply instances of worn out lands being brought into a highly productive and profitable state, by the new husbandry, if it were necessary; but almost every old settled district furnishes examples in point. Enough has been shown, or may be seen, to justify us in saying, that under the new system of husbandry, every acre of arable land, if any where contiguous to navigable waters or a good market, may in a few years be made to yield a net annual profit, equal to the interest of two hundred dollars. And we may add, that with such an income, and the industry and economy which belong to republican habits, there are few employments in life better calculated than agriculture to render a man independent in circumstances and in mind, and rich in all the elements of substantial happiness.

Lime Your Orchards.

The effect of lime on grounds in which fruit trees are planted, is stated to be very beneficial; it improves their health and promotes their growth, and is said to improve the quality of the fruit. The food or pasture of the trees is increased in quantity and improved in quality by the application; and it is doubtless an important agent in destroying the grubs and worms which are so destructive to fruit trees by the wounds which they inflict, as well on the tender absorbent fibres of the roots, as on the branches and trunk.

From the American Farmer.

Bots in Horses. Murrain in Cattle.

It is the duty of every person who has any experience in the treatment of diseases in that noble and useful animal, the horse, to communicate it to the public.

It was my province a few years since to have much to do with that noble animal, and of course among the number in my possession, I would find a number that would be diseased, and very often my skill and experience would be taxed to find a remedy for some of the diseases to which they would be very often subject.

The most formidable disease to which this noble and useful animal is addicted, and there is none more alarming in its attacks, is the bots.

I had consulted the highest authorities in the veterinary art for the treatment of this disease, and faithfully used the remedies laid down, without any benefit. I was induced from interest, and also for the very high regard which that noble animal, the horse, held in my estimation, to use every expedient in my possession, to cure this formidable disease. I had another motive—I had lost several very fine horses by this disease, which induced me to use and try every experiment which my ingenuity could invent, to arrest this disease among my horses, and prevent, if possible, its recurrence among them.

I am satisfied, and feel convinced, that I will offer to the public, an infallible remedy for the bots.

Some six years since, I purchased a very fine horse, but he had the appearance of labouring under some disease. I commenced a course of treatment, which I thought would relieve him, and which I had pursued in the treatment of some other horses which had the appearance of being diseased in a similar manner to the above mentioned horse, with decided relief; but in this case all my remedies failed of their desired effect.

I was induced to try the use of lime in the treatment of his case, as I was confident he was filled with grubs or bots, as he had discharged several. I commenced by giving him a table-spoonful of slaked lime three times per week, in bread mashes. After pursuing this course near too weeks, the bots began to pass off in quantities varying from ten to twenty, which he would expel during the night, from his intestines. In the meantime his appetite began to improve, and in six weeks he was one of the finest looking geldings I ever saw. From that day to this, I have kept up the use of lime among my horses, with decided benefit. As an evidence of its good effects, I have not lost a horse since I began to use it.

A large number of the bots which he would expel from his intestines, had the appearance of being dead. I was induced from this fact, to put some of them in a strong solution of lime-water, as I had frequently put them in spirits of turpentine, without producing any effect on them; but all those that I put into lime were perfectly dead in eight and forty hours.

Lime is a certain preventive in keeping cattle from taking the murrain. As an evidence of this fact, I have used it among my cattle three times per week, mixed with salt, for three or four years. In that time I have not lost a single cow, or steer, or ox, by this disease; in the meantime, some of my neighbours have nearly lost all the cattle they owned.

I will give you a stronger case than the one above mentioned. One of my neighbours who lost all his cattle, had a neighbour living within two hundred yards of him, who had several cattle which ran daily with those that died, and his cattle all escaped. He informed me he made it an invariable rule to give his cattle salt and lime every morning.

I have no doubt it is a sure and infallible remedy for bots in horses, and a preventive of murrain among cattle. J. W. J.

Red House, N. C., Nov. 16th, 1839.

Incubation.

The progress of the incubation of the chicken is a subject curious and interesting. The hen has scarcely sat on the egg twelve hours before some lineaments of the head and body of the chicken appear. The heart may be seen to beat at the end of the second day; it has at that time somewhat the form of a horse-shoe, but no blood yet appears. At the end of two days, two vesicles of blood are to be distinguished, the pulsation of which is very visible: one of these is the left ventricle, and the other the root of the great artery. At the fiftieth hour, one auricle of the heart appears, resembling a noose folded down upon itself. The beating of the heart is first observed in the auricle, and afterward in the ventricle. At the end of seventy hours the wings are distinguishable; and on the head two bubbles are seen for the brain, one for the bill, and two others for the fore and hind part of the head. Toward the end of the fourth day, the two auricles, already visible, draw nearer to the heart than before. The liver appears toward the fifth day. At the end of a hundred and thirty-one hours, the first voluntary motion is observed. At the end of seven hours more, the lungs and stomach become visible, and four hours after this, the intestines, the loins, and the upper jaw. At the hundred and forty-fourth hour, two ventricles are visible, and two drops of

blood instead of the single one which was seen before. The seventh day the brain begins to have some consistency. At the hundred and nineteenth hour of incubation, the bill opens, and the flesh appears in the breast; in four hours more the breast bone is seen; in six hours after this, the ribs appear forming from the back, and the bill is very visible, as is the gall bladder. The bill becomes green at the end of two hundred and thirty-six hours; and if the chicken be taken out of its coverings, it evidently moves itself. The feathers begin to shoot out toward the two hundred and fortieth hour, and the skull becomes gristly. At the two hundred and sixty-fourth hour the eyes appear. At the two hundred and eighty-eighth, the ribs are perfect. At the three hundred and thirty-first, the spleen draws near the stomach, and the lungs to the chest. At the end of three hundred and fifty-five hours, the bill frequently opens and shuts; and at the end of the eighteenth day, the first cry of the chicken is heard. It afterward gets more strength, and grows continually, till at length it is enabled to set itself free from its confinement.

In the whole of this process, we must remark that every part appears at its proper time; if, for example, the liver is formed on the fifth day, it is founded on the preceding situation of the chicken, and on the changes that were to follow. No part of the body could possibly appear either sooner or later, without the whole embryo suffering; and each of the limbs becomes visible at the fit moment. This ordination, so wise and so invariable, is manifestly the work of a Supreme Being: but we must still more sensibly acknowledge his creative powers, when we consider the manner in which the chicken is formed out of the parts which compose the egg. How astonishing it must appear to an observing mind, that in this substance there should at all be the vital principle of an animated being! that all the parts of an animal's body should be concealed in it, and require nothing but heat to unfold and quicken them! that the whole formation of the chicken should be so constant and regular! that, exactly at the same time, the same changes will take place in the generality of eggs! that the chicken, the moment it is hatched, is heavier than the egg was before! But even these are not all the wonders in the formation of the bird from the egg (for this instance will serve to illustrate the whole of the feathered tribes:) there are others, altogether hidden from our observation; and of which, from our very limited faculties, we must ever remain ignorant.—*Provincial Journal.*

Ask thy purse what thou shouldst buy.
Never buy what you do not want.

From the Hampshire Gazette.

Antidotes for Poisons.

The following communication from Dr. Hall will be read with interest at this time. Every family should keep the antidotes named by Dr. Hall, laid up where they can be instantly obtained, in any case of emergency. When an active poison is taken, the only safety of the sufferer is in the *immediate* application of an antidote. A short delay is fatal.

"Every bitter hath its sweet, every poison its antidote."

The repeated cases of poisoning which have recently occurred in this village, have induced me to make public some of the most efficient antidotes for poisons, especially for those which are found in the domestic department of almost every family. I am induced to make these "antidotes to poisons" public, because in instances of poisoning, from accident or otherwise, the urgency of the case does not allow us to wait for medical assistance, which is scarcely ever obtained without some delay, and consequently of comparatively little or no avail when it is, and the life of an individual is often lost by waiting, when by prompt interference it might have been saved.

I have confined myself to mentioning those antidotes which are the most simple and the most easily obtained; and it is worthy of notice, that *those* are the very articles that are most effectual. The practice of forcing down large doses of powerful and irritating emetics, which in themselves are almost sufficient to destroy life, cannot be too strongly reprehended. When emetics are necessary, as they sometimes are, especially in those cases of poisoning by substances which produce great torpor of the system, (such as opium and all the narcotics,) the safety of the patient requires that the dormant energies of the stomach be aroused. In these cases, nothing is better to be given than ground black mustard, a large tea-spoonful of which may be mixed with water and swallowed at once. It operates very promptly—it is perfectly safe, and nothing can be more effectual.

As a general rule, the effects of poisons are better counteracted by articles, which, being taken into the stomach *immediately* after the poison is swallowed, enter into combination with the poison, and form with it a new substance, either harmless in itself, or incapable of being acted on by the fluids of the stomach.

For *Oil of Vitriol*, the best antidote is large doses of Magnesia and water, or what is still better, equal parts of soft soap and water.

For *Aqua Fortis*, same remedy as the last.

For *Oxalic Acid*—(This resembles Epsom

Salts, and is often used for bed-bug poison.) Chalk and water renders it perfectly inert, forming an insoluble salt of lime. Magnesia is also a good antidote.

For *Tartar Emetic* in poisonous doses, Peruvian Bark and water renders it harmless; if that cannot be procured, use a strong decoction of tea until it can.

For *Saltpetre*, (which is also sometimes mistaken for salts) a prompt emetic of mustard and water—afterwards mucillages and small doses of laudanum.

For *Opium or Laudanum* in over doses, an emetic of mustard, constant motion in a wagon or otherwise, and the stomach pump, where it can be obtained.

For *Lunar Caustic*, (the principal ingredient in indelible ink,) common salt forms an insoluble substance which is harmless.

For *Corrosive Sublimate*.—(This is the most common bed-bug poison, but it has probably destroyed as many persons as bed-bugs.) The whites of eggs mixed with water is the best and most effectual remedy. This should be given until free vomiting takes place. (Albumen renders this poison harmless, the whites of eggs are mostly albumen.)

For *any of the Salts of Copper*.—The same remedy as the last.

For *Arsenic*.—Three or four cases are reported as having been cured by doses of Magnesia. But the only sure antidote is the *freshly prepared* Hydrated per Oxide of Iron. This is not always at hand, and cannot well be prepared except by a physician, or an apothecary.

Rules for House-Wives.

1. When you arise in the morning, never be *particular* about pinning your clothes so very nicely; you can do that any time.

2. Never comb your hair, or take off your night cap till after breakfast. It is *your* business to take time by the foretop, and not let him take you so; therefore keep all right in that quarter till ten o'clock at least.

3. When you begin the business of *your toilet*, you may do it before the window or in the front entry; but the most proper place is in the kitchen.

4. Never have any *particular place* for any thing in your house; and then you may rest assured, that *nothing* will ever be out of place; and that is a great comfort in a family.

5. Never sweep your floor, until you know some person is coming in; he will then see how *neat* you are: and, besides, in such cases, even your enemies cannot shake off the *dust of their feet*, against you, though they may the dust of their clothes, with which you have covered them by your sweeping.

6. When you have *done* sweeping, leave your broom on the floor, it will then be handy: and being always in sight, and in the way, it will be constantly reminding your husband, when he is in the house, what a smart, nice, pains-taking wife he has.

7. Never follow the barbarous practice of brushing down cobwebs. A man's house is his castle: and so is a spider's:—It is a violation of right; and a shameless disrespect to the fine arts.

8. Keep your parlour and bed-room windows shut as close as possible in dog days; this will keep the hot air out—and you will have excellent *fixed* air inside.

9. Keep your *summer cheeses* in your bed chambers;—they enrich the qualities of the atmosphere; and if a stranger should lodge in one of your beds, if he could not *sleep*, he could *eat* for his refreshment.

10. Never teach your daughters to *mend* or *make* any of their own clothes: it is "taking the bread from the mouth of labor"—besides, it will make them crooked and give them sore fingers.

11. But if they should insist on *mending* their own garments, they should do it while they are on; this will make them *fit* better: and girls can't leave their work: if they should attempt it, their work would follow them.

12. If your husband's coat is out at *one* of the elbows, don't mend it until it is out at the *other*; then the patches will make it appear uniform; and show that you are *impartial*.

13. Never spoil a joke for a *relation's* sake; nor suppress the truth for *any body's* sake. Therefore, if you don't like your husband as well as you ought—*out with it*, and convince him you are not a respecter of persons.

14. You should endeavour not to keep your temper: *let it off* as soon and as fast as you can; and you will then be calm and quiet as a bottle of cider after the cork had been drawn half a day.

15. If, on any particular occasion, you are at a loss as to the course you are to pursue, in the management of yourself or your family affairs, take down the paper which contains these rules, and read them over and over till you have satisfied your mind—and then go on.

POOR RICHARD.

"AN EXCELLENT PICKLE FOR BUTTER.—Take two pails of water, too quarts fine salt, one-fourth of a pound of loaf sugar, two ounces of salt petre, well boiled and skimmed. Cover the butter with this pickle, and it will keep sweet the year round."

From the Yankee Farmer.

DISAPPOINTMENT;

OR, THE SALTED PUDDING.

Versified by its original author. (N. B. First published in prose in the Amaranth, 1833.)

A jolly old wight, ('twas a farmer of yore,
Who ne'er turn'd the needy away from his door,)
Was fond of good pudding, and order'd the same,
As often as Saturday evening came.

I mean hasty-pudding, an excellent food,
And *Grahamites* call it both wholesome and good;
But Gaffer *he* cared not for *Graham* a straw,
For he butter'd his pudding to pleasure his maw.

In condiments too, he was never a slouch,
As all his domestics might very well vouch;
Of salt, or of pepper, of mustard, or mace,
If there was a lacking, he'd show a wry face.

One Saturday night, when their labour was done,
A stranger called in there, the tempest to shun;
They bid him a welcome, and gave him a chair,
So he tarried all night, and partook of their fare.

The pudding, from meal of the rich yellow maize,
Was boiling and muttering over the blaze,
The worthy good house-wife was tewing about,
With Dolly, the maid, up and down, in and out.

"I'll bet now," cries Gaffer, "the salt is forgot,"
So he took out a handful and threw in the pot;
Then stept out of doors, when his wife, in a trice,
Came along and put in as much more of the spice.

Next Dolly, the maiden, and Moses, the son,
Both salted the pudding, not knowing 'twas done;
The stranger, with Romans, like Romans must do,
So, following the fashion, *he* salted it too.

The old oaken table by Dolly was set,
Around which the farmer's good family met;
The broad pewter platter, an heir-loom of fame,
Brim full of hot pudding, was placed on the same.

"Come, come, friend," quoth Gaffer, "fall to and spare not:—
When this we have finish'd, there's more in the pot."
Then, taking a mouthful, cried,—"thunder! what's here?
Who salted the pudding, wife?"—"I did, my dear."

"Did you?—so did I;"—"so did I too," said Moses:
"The gallows!" cried Gaffer, "we've put in three doses!"
"I salted it also," said Dolly, "that's four;"
"For me," said the guest, "you may reckon one more."

"What, five?—by Lot's wife," cried the honest old wight,
"Then sure we've no pudding for supper to-night.
Can you something provide, spouse? you'd better go look;
If not, it is plain, we must all kiss the cook."

What they supped on, no matter; the house had enough,
For the farmer an army of gourmands might stuff.
The moral is common,—*in palace or cottage,*
With two many cooks, you will ruin your pottage.

Secret Worth Knowing.

How to make three pair of boots last as long as six, and longer.

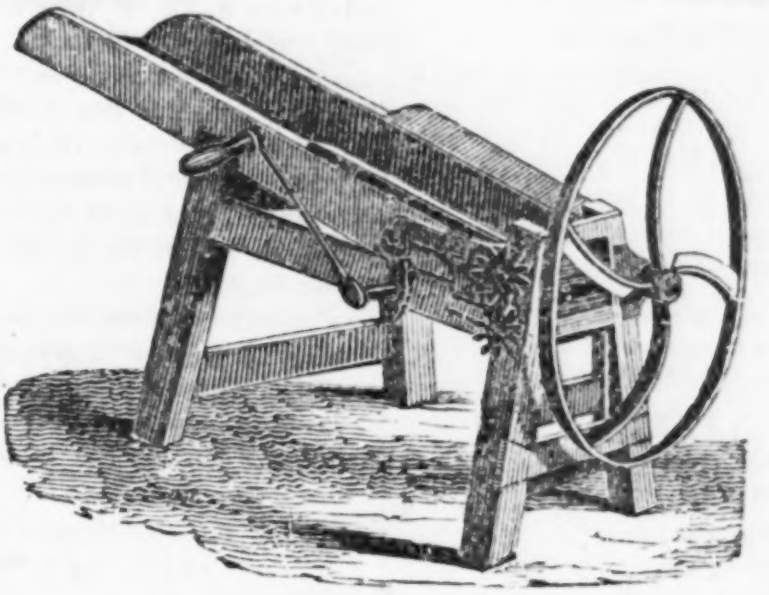
The following extract from Colonel Macarone's "Seasonable Hints," appeared in the Mechanics' Magazine, dated February 8th, 1838. After stating the utility of sheep-skin clothing for persons whose employment renders it necessary that they should be much out doors, &c. he says—"I will not conclude without inviting the attention of your readers to a cheap and easy method of preserving their feet from wet, and their boots from wearing. I have had only three pair of boots for the last six years, (no shoes,) and I think that I shall not require any others for the next six years to come. The reason is that I treat them in the following manner:—I put a pound of tallow and half a pound of rosin into a pot on the fire; when melted and mixed, I warm the boots, and apply the hot stuff with a painter's brush, until neither the sole nor upper leather will suck in any more. If it is desired that the boots should immediately take a polish, dissolve an ounce of beeswax in an ounce of spirits of turpentine, to which add a tea-spoonful of lamp-black. A day or two after the boots have been treated with tallow and rosin, rub over them the wax and turpentine, but not before the fire. Thus the exterior will have a coat of wax alone, and shine like a mirror. Tallow, or any other grease, becomes rancid, and rots the stitching as well as the leather; but the rosin gives it an antiseptic quality, which preserves the whole. Boots or shoes should be large so as to admit of wearing cork soles. Cork is such a bad conductor of heat, that with it in the boot, the feet are always warm on the coldest stone floor.

How to prevent Oxen Hauling Apart.

Some oxen have a very vexatious trick of hauling apart, when in yoke. Mr. Francis Wingate, an experienced farmer at Hallowell, informs us that he prevented this in a yoke of oxen, by placing a small rope or line, a codline for instance, across from the horn of one ox to the horn of the other, thus bringing their heads in some degree together. The line should be tied around the tips, which, if they have balls on, may be kept there very easily, and should be proportioned in length to the length of the yoke.

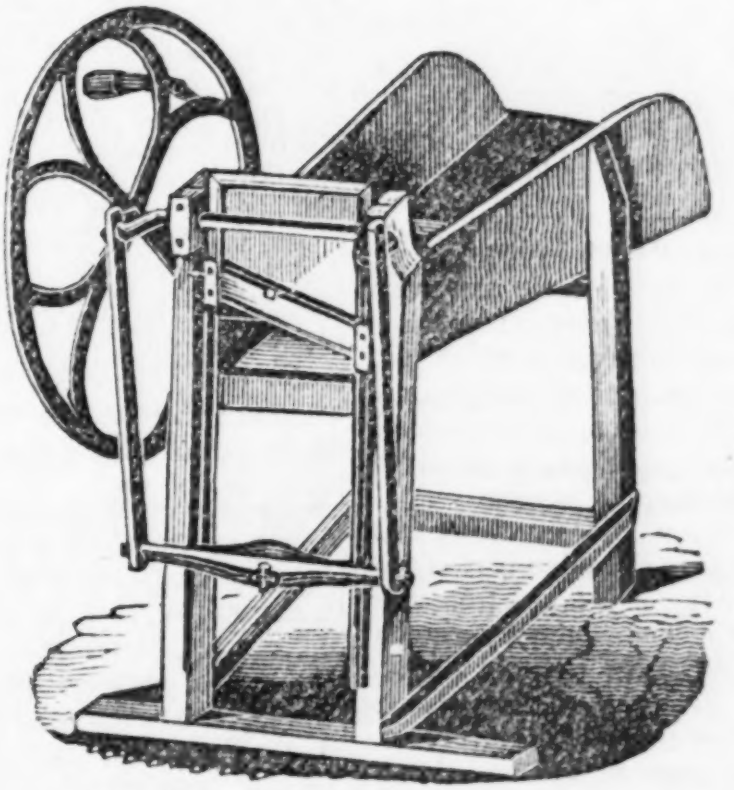
If this simple remedy will obviate the trouble in all oxen addicted to this trick, it is worth knowing. If the rope be tied around the tips instead of around the roots of the horns, they will have less purchase upon it, and a smaller cord will answer the purpose. —*Maine Farmer.*

STRAW CUTTERS.



The above cut is a representation of "*Willis' Improved Vertical Hay and Straw Cutter.*" This machine is well constructed on mechanical principles; the knives are so placed as to operate with a drawing stroke—cuts free and easy—is fed and worked by one man, and will readily cut thirty bushels per hour.

The cut below represents the "*The Guillotine Straw Cutter,*" invented by the same individual; a very effective, cheap (price $15) and durable machine. Either of these machines are well calculated for cutting the usual variety of fodder found on the farm. They have advantages over some in use, by their adaptation to cutting corn fodder, a very desirable property, to the purchaser of an article for general use. The advantage



of cutting the long food for cattle and horses, is no longer a "problem to be solved." The question is settled by the repeated experiments before the public. As an illustration of the great loss sustained by those who altogether neglect the use of the straw cutter on their farms, we give the statement below from a *calculating man*, Mr. BENJAMIN HALE, proprietor of a line of stages running between Newburyport and Boston. It is a correct statement of savings made by the use of straw cutters in preparing the food for his horses. He says:—

	Tons.	*cwt.*	*qrs.*	*lbs.*
"The whole amount of hay purchased from April 1, to Oct. 1, 1816, (six months,) and used at the stage stable, was	32	4	0	10
At $25 per ton, (the lowest price at which hay was purchased in 1816,)				$800 00

From Oct. 1, 1816, to April 1, 1817, whole amount of hay and straw purchased for, and consumed by the same number of horses, viz.

	T.	cwt.	qrs.	lbs.	Cost.
Straw	11	13	3	10	$160 22
Hay	13	14	1	00	$350 00
					$510 23

Deduct on hand, April 1, 1817, by estimation, four tons more than there was Oct. 1, 1816, at $25 per ton, $100 00 — $410 23

Saving by the use of the Straw Cutter, four months of the last six months, or the difference in expense in feeding with cut fodder and that which is uncut, ... 389 77

Whole amount of hay used for the horses of the Salem stage, twenty-five in number, from April 1, to Oct. 1, 1816, viz. ..... T. 22 cwt. 0 qrs. 0 lbs. 0

At thirty dollars per ton (the lowest price in Salem.) $660 00

Whole amount consumed by the same number of horses, from Oct. 1, 1816, to April 1, 1817,

	T.	cwt.	qrs.	lbs.	Cost.
Straw	15	13	0	0	$187 80
Hay	2	15	0	0	81 00
					268 80

Saving in using chopped fodder five months, ... 391 20

Total saving in using the straw cutter nine months, viz. at Newburyport, four months, ... 389 77

At Salem five months, ... 391 20

Total, ... $780 97

Note.—A variety of Straw Cutters are for sale at the Agricultural Warehouse, No. 87 North Second street, including those represented above, "*Green's*," and others.

From the Farmer's Monthly Visitor.

Friend Hill:—As many people are very fond of the intestine of our neat cattle, commonly called *tripe*, and many more would be, if they understood cleansing and preparing it for the table, I thought some might be pleased with directions which will enable them to prepare it in the best manner possible.

The following is the method by which this very valuable and highly palatable part of the beef is prepared. After it is taken from the creature, make an incision of about eighteen inches, through which turn out the excrement with care to keep the outside clean; then turn it inside out and sew up this opening perfectly tight: rinse off the remaining impurities in warm water, put it into an empty tub. After which, take two quarts of air or dry slaked lime, which rub over it with the hands, the hands being previously greased to prevent the lime from corroding them. Add about three quarts of warm water, in which let it remain from fifteen to twenty minutes. Then with a knife scrape it while in the tub, and the inner pellicle or skin, together with the remaining filth, will rapidly peel off, and leave the tripe perfectly white and pure. Wash and rinse off all impurities: after which, cut it into convenient slices to boil: then put it to soak in cold water, with the addition of a little salt, in which let it remain twenty-four hours, changing the water three or four times. It has now become free from all external impurities; and that strong rank taste, which in the ordinary process is retained, is now extracted, and it is left perfectly sweet.

Process of Cooking.—Boil it until it is tender, then cut it into small pieces; add butter to it, warm it again, not so as to fry it, and it is one of the most delicious and palatable articles of food on the table.

From the Farmer's Magazine.

Nitrate as a Manure.

Sir,—In answer to your correspondent, Mr. J. R. Barker, who inquires as to the use of nitrate of potash, (saltpetre,) I beg to say, it should be used as a top dressing in March or April; and might then be put in those parts where there is an evident failing in the crop, but the growth must not depend on saltpetre alone; as a cheaper substitute, the nitrate of soda has strong recommendations. At the present time many spots on the Guildford Downs show evidence of its beneficial effects; but always, where there has been also a portion of stable dung, or folding with sheep, for the alkali is not only a food of itself to growing vegetables, but it acts as an assistant in converting the œleaginous matter that may be in the land into a soap; by that means they are soluble in water, and become food to growing vegetables; alone, it is recommended as a top-dressing in the spring, being exceedingly soluble, soon passes down to the roots, therefore is best sown in wet weather; the sun has a tendency to injure the leaves of plants when the sowing takes place in its rays. This nitrate has been mixed with the prepared humus manure, and sown with the seed in the proportion of one pound of nitrate to a bushel of manure; the effects have been good with every seed—and this coincides with the experiments made by Mr. Robert Rigg, as published in the *Farmer's Magazine* for June last, of the influence of nitrogen in the growth of vegetable substances. Of the price of this concentrated nitrogen in the shape of cubic soda, it is about 10*l.* per ton cheaper than the nitrate of potash. E. J. Lance.

Barossa Cottage, Bagshot, Aug. 3.

With strength and counsel joined, think nothing hard.

In making innovations the utility should be clear.

From the Genesee Farmer.

Hog Manure.

For aiding the growth of many plants, and particularly corn, we have never found any manure the application of which produced such effects as that from the hog pen. Last year we had a field of corn dunged in the hill, part of it with alternate loads of hog-pen manure, and common good stable manure. Each load planted about five or six rows. From the commencement of their growth, till the ripening of the corn, the rows manured from the pig-pen had the advantage, and at harvesting they yielded a much larger quantity of corn than the others, though all was excellent. A neighbour, the last spring, in planting his corn, used good stable manure, except for some few rows, for which the stable manure falling short, he substituted a load or two from his hog-pen. The difference in the size of the corn from the first, was such as to arrest the attention of every passer by, and though the year has been unfavourable for corn, it has given a handsome product compared with the other. Other instances have this year fallen under our notice, the results of which were precisely similar, and have established, in our opinion at least, the superiority of this manure over every other. Its greatest effect, however, so far as our experience or observation has extended, is produced on soils of a loamy or sandy texture, and on vegetables that require active manures to bring them forward rapidly.

It appears to us, then, an object of considerable consequence to the farmer, that he should avail himself of this resource for fertilizing his soil, as far as possible, and that methods should be adopted by him to preserve and increase the amount at his command, as far as may be, and not allow the avails of his pig-pen to be lost to the farm, as is not unfrequently done. Where pigs are allowed a small yard to run in from the pen, they may be made to produce a large quantity of good manure, by frequent additions to the material in the yard, of straw, weeds, turfs, muck, or even good common earth, to absorb the fluid part of the manure, and preserve its salts from escaping. In this frequently renewed mass, the pigs will love to work; and if any disinclination is manifested in them to stir this compost heap, a few handfuls of corn scattered over the surface, will speedily overcome it, and set them busily at work. If the pigs cannot leave the pens, the stye should be frequently cleaned, and care should be taken that the dung so thrown out is not lost to the premises. A load of muck, or vegetable mould, occasionally mixed with, or thrown upon the heap, will, when the time for using it in the spring of the year arrives, be found, from this absorption of salts, and combination with the manure, an application of much greater value than common stable manures, for most of the crops cultivated by the farmer. Fresh manure of any kind should not be applied directly to crops of grain; as they are apt to produce too much straw and endanger the formation of a good berry. Manure should be first applied to roots, or to corn, and grain follow; by which the danger of a too rapid growth is avoided.

For the Farmers' Cabinet.

Topping Corn.

Will the Editors indulge a subscriber with propounding, through the medium of the Farmers' Cabinet, some queries which he believes to be of much importance to corn growers, and perhaps to others, inasmuch as every thing which tends to increase the quantity and quality of food for man or beast, must be in a measure interesting. The object of the writer is to call the attention of such of the readers of the Cabinet as may be competent to make experiments, and communicate the result through that medium, thinking, as he does, that the best mode of securing corn is of much importance, both as to the quality of the grain and also of the fodder, that one practice might generally obtain instead of several; some now plant one kind, some another; some top their corn, some cut it near the ground; others leave it standing until ripe, and after husking cut it for fodder —each practice has its advocates, who all think theirs the best. The being differently circumstanced as respects soil, as also in regard to the convenience of foddering, will warrant a continued difference in practice, both as to the kind of grain planted, and the manner of securing the fodder; unless it can be made satisfactorily to appear that the grain is more valuable when secured in one way than the other. The writer is of opinion, that by topping, the sun and air has a more free access, and that the corn ripens earlier than if left without topping; that it does not prevent the sap from passing from the roots to the ear so far as is required, in order to the full maturity of the grain, and frequently prevents the corn from being blown down by the autumnal winds. When I top my corn I have the fodder put under cover as soon as perfectly dried, which renders it, in my opinion, of twice the value which it would be if left exposed, as is very generally the case with that which is cut up and husked in the field; and further, I am enabled to feed it to the cattle in their stalls, which could not be done if cut up, especially if the corn was large; and in order that there may be no waste of fodder or litter, the remaining part

of the stalk is cut off immediately after husking and stacked by the barn yard to be thrown in as wanted through the winter. When the corn is suffered to stand in the field without topping until after it is husked, there is an almost total loss of the fodder by winds and rain. The advocates of this practice say the corn is better than when topped or cut off and shocked—again, those who cut it off say that there is more in measure and of equal quality in their practice; those who top adhere to the opinion, that their practice is best, believing that the grain has more nutriment. The opinion has heretofore generally prevailed, that sun and air were essentially necessary to the fully maturing of vegetables—is Indian corn an exception to this rule? Does the sap circulate in vegetables after they are cut off and begin to dry, and if not, in what manner does unripe grains of corn receive the requisite quantity of nourishment to bring them to a state of full perfection? is there no way by which to test the actual quantity of nutriment there is in the different kinds of corn? and also of the same kind when left standing, cut off or topped? If there is, and the experiment was satisfactorily made by repeated trials on a given quantity of each and published in the Cabinet, it would much gratify a

Montgomery County Farmer.

From the New England Farmer.

Cutting of Stalks.

Several writers have, within a few years, recommended to let corn stalks stand until harvest, and then take all together. They say the corn will weigh more, and that it is not more work to harvest the crop than when the stalks are cut. The corn may be a little heavier; but suppose it is, that advantage is more than counterbalanced by the extra labour caused by the stalks not being cut, besides a loss of valuable fodder. I have, in several instances, had a frost take part of my corn before the stalks were cut, so as to kill the leaves, but not to injure the corn, and did not cut the stalks; and have, in every instance, found that it cost more to harvest the crop, than to cut the stalks and secure them, and then harvest the corn; that is, it is cheaper to secure them separately, than to take both at once. When stalks and corn are cut both at once they are too bulky, and it takes much more room to secure them than to take the stalks off first, and bind them in bundles.

Curing of Stalks.—It is a favourite method with some, to bind their stalks as soon as they think they will do, and immediately secure them under cover, and hang or set them up in an airy place. So managed, they look very nice, but do cattle like them best! This is what we want. Now it is a fact I have learned from actual experiment, that housing them is not the better way, but another way is better, as any man's cattle will tell him, if he will but try it. It is this—the next day after the stalks are cut, when the leaves are not so dry as to crumble, bind them in small bundles, and then shock them, or as it is called where I live, *pike* them—which is, to set eight or ten bundles, or such number as appears to be suitable to make a pike of proper shape to shed rain, on their butts—draw their tops together and cap with two bundles—when they are sufficiently dried to keep, put them into some building, and if the butts are too green, place the bundles to stand with the butts upwards. In this way my cattle prefer them to any other: there is a sweetness in them that cannot be had when dried in a building.

Mixing of Corn.—Here I shall differ from all that I have ever read, or heard spoken on this subject. The common opinion is, that the blossom on the top stalk falls on the end of the ear, and causes the mixture. This seems to me to be hardly possible, when it is considered that the silk, as it is called, lops down as soon as it has grown beyond the length of the ears, and also that it is not probable that one blossom in a thousand, or the farina, lodges on the end of the ear. My theory, and *I believe* it to be the true one is, that there is a silk from the bottom, that is, next the cobb, of every kernel of corn: the silk is hollow—a tube, so to express it. Go into a field with a good glass, when this gendering takes place, and I believe there will be seen a vapor, or myriads of vapors, resembling so many spiders' webs, leading in all directions, from the top stalks to the ends of the ears—I saw it once with my naked eye. This, in my poor opinion, is the way in which corn mixes,—it is by sympathy, or attraction, or whatever name the learned may call it by.

By my observation, corn seldom mixes more than two rows each way, when two kinds or colours are planted side by side—whereas if it were done by the blossom falling on the ear, I see not why it might not mix for a much greater distance, by the wind blowing the blossoms.

Dec. 23, 1839. A Farmer.

Easy Mode of Edging Razors.

On the rough side of a strap of leather, or undressed calf-skin binding of a book, rub a piece of tin, or a common pewter spoon, for half a minute, or till the leather becomes glossy with the metal. If the razor be passed over this leather about half a dozen times, it will acquire a finer edge than by any other method.—*Mechanics' Magazine.*

For the Farmers' Cabinet.

Expenses and Proceeds of Crops.—No. 2.

In my former communication I gave a concise account of the principal crops of the farm. I will now proceed to do the same with some of the minor ones, or such as do not enter into the regular rotation: and commence with—

Broom Corn.—1 acre gravelly loam.—Ploughed May 10th, then rolled and well harrowed, struck out the rows quite shallow, about four feet apart—put in four quarts seed with a drill, and ran over it with a light harrow to cover it well: Dressed it with the cultivator on the 14th, and again on the 19th June; finished tending it on the 30th, by throwing a light furrow to the corn, and passing the cultivator after the plough once in a row—bent it several times during August, to prevent the heads from spreading and becoming ill-shaped. Cut the wisks and secured them in the barn in October, afterwards cut the stalks and hauled them into the yard as litter; if the corn had been cut earlier, *perhaps* these might have been worth preserving as fodder.

BROOM CORN.

DR.	
To ploughing half a day,	$1 00
To harrowing three times,	50
To drilling and seed,	25
To tending,	2 00
To gathering,	3 25
To making into brooms,	6 00
	$13 00
CR.	
By 16 dozen brooms, at $2,50 per dozen,	$40 00
Deduct expenses,	13 00
Balance,	27 00

Potatoes.—Three-fourths of an acre, gravelly loam, in corn the year previous. Hauled on twenty ox cart loads stable manure, and spread it evenly; ploughed it in the 21st of May, dropping the cuttings at a distance of nine inches apart, into every third furrow, then rolled the whole, harrowed them ten days after with the common harrow; ran the cultivator through them on the 16th and 30th of June; gave them the last dressing with the plough on the 7th July. Gathered them the first week of November. The method practised was, to run a furrow directly along the row with a plough, followed by the pickers, then pass the cultivator over it, and lastly, the common harrow two or three times—the pickers getting all that appear at each going over; if careful, but few will be missed in this way, and it is much more expeditious than digging them with hand rakes. It required six bushels large seed potatoes, cut into pieces of one eye each, some time before planting, to allow them to dry. They should have been housed earlier in the season.

POTATOES.

DR.	
To hauling manure one day,	$3 00
To twenty loads manure, at $1 per load,	20 00
To ploughing and planting,	3 00
To six bushels seed, at 50 cts. a bushel,	3 00
To tending,	1 00
To gathering,	2 00
	$32 00
CR.	
By fifty bushels potatoes, at 80 cts. per bushel,	$40 00
Deduct expenses,	32 00
Balance,	$ 8 00

Ruta Bagas.—One acre clay loam, in corn the year previous. Hauled on twenty ox cart loads of barn yard manure, spread it evenly, ploughed it under and harrowed the ground well about the middle of June. Let it lay until the middle of July, then threw it into ridges two feet and a half apart; put ten loads of compost in the trenches and covered it by splitting the ridges, and throwing a furrow on to it on each side, then rolled it and drilled in three quarters of a pound of seed. Owing to the dry weather they did not make their appearance for more than three weeks after the seed was deposited in the ground. The tending of this crop was not kept account of regularly.

RUTA BAGAS.

DR.	
To twenty loads manure, at $1 per load,	$20 00
To ten loads compost,	10 00
To ploughing and harrowing one day,	2 00
To hauling and spreading manure,	3 50
To putting in and seed,	3 50
To tending and pulling, say	5 00
	$44 00
CR.	
By 200 bushels Ruta Bagas, at 30 cts. per bush.	$60 00
Deduct expenses,	44 00
	$16 00

Beets.—One-fourth of an acre sandy loam, in corn the previous year. May the 18th, hauled on four loads of barn yard manure,—spread it evenly and ploughed it under deeply and harrowed the piece well; then threw it into twenty inch ridges—put two loads of short well rotted manure in the trenches, and ridged over it again, smoothed and levelled the ridges with a rake, and dibbled in the seed by hand, five inches apart. Hoed them on the 11th and 19th of June; on the 25th, immediately after a rain, thinned them to ten inches apart, filling up vacancies with plants taken from where they were too thick; hoed them the last time on the 13th July. Pulled them early in November. The rows were too contiguous, attempted once to dress the patch with the plough and cultivator, but gave it up as poor business. Thirty inches between the rows, would have allowed of their being dressed by horse, instead of manual power,

and then perhaps they would not have suffered as they did, from want of the soil around them being kept open to the influence of the atmosphere. There were about thirty bushels of beets, the tops were used through the growing season as food for pigs.

Pumpkins.—One-fourth of an acre, gravelly loam, manured all over and ploughed the 8th of June, harrowed until quite mellow, then struck out rows eight feet apart, put a shovelful of old compost every six feet along the furrows; drew a slight covering of earth on to this with a hoe, dropped from four to six seeds thereon and covered them about an inch deep: kept the soil loose with the cultivator, until the vines began to spread over it, hoed immediately around the hills by hand once, and thinned the vines to two and three in a place. Gathered the pumpkins the last week of October, and fed them off soon to milch cows and hogs, as they are easily affected by frost.

April 4th.—Planted a patch of early potatoes in ridges.

April 18th.—Grafting apple trees.

May 14th.—Apple trees in blossom.

May 18th.—Quince do. do.

June 12th.—Early potatoes do.

July 4th.—Thermometer 92° in the shade.

July 5th.—Wheat rusted in a slight degree last night.

July 20th.—Sowed buckwheat.

July 25th.—Cradled timothy for seed, and mowed the stubble for hay.

July 30th.—Trimmed all the fences of weeds and briars.

October 27th.—Pasture yet growing luxuriantly. Buckwheat crops have been quite light from the drought. Chesnuts plenty.

October 30th.—The first fall of snow; a severe frost last night, caused many of the trees to drop their foliage, which until then had remained quite green. Clover seed twenty-four dollars per bushel.

I have taken these extracts from my journal to show a little the manner in which it is kept. A. E. T.

Philadelphia County, Dec. 2, 1839.

Origin of the Word "Farm."—In the Saxon times the estate which the Lords of Manors granted to the freemen were at the first but for years, with a tender of a rent, which in those days were of corn or victuals, and thence the leases so made were called formes or farms, which word signifieth victuals; but times ensuing turned the victuals into money, and terms of years to terms of life and inheritance, retaining the rents and those called quit-rents, or the rents of these persons that were acquitted or free.

From the Mississippi Farmer.

The Art of Curing Bacon.

Messrs. Editors:—It is conceded by all, that the people of Eastern Virginia excel all others in the art of curing bacon, and this reputation is strictly founded upon truth. And yet there is no good reason why it should be so, for I made as good bacon here last year as I ever made in old Virginia. The people of Kentucky, Ohio and Tennessee do not make it as well, nor ever will, until they adopt the Virginia method, and every part of that method; for, to dispense with any one of the requirements, although some appear frivolous to the inexperienced, will prove certainly fatal to your bacon, if intended for the palate of a connoisseur. As the bacon making season is near at hand, I propose to furnish your readers with the most approved method as practised in the Tuckahoe region of that renowned commonwealth.

In the first place then, let your hogs be well fatted on corn; for it is impossible to make good bacon out of lean or mast fat.

It is very desirable that your hogs be killed by the first of January, if the weather suits, as you will thereby have time enough to salt and smoke your meat before the warm weather sets in. At all events, have them in readiness to be killed the first suitable weather after that period.

Unless the weather should be very cold when you kill, it will be prudent, in this climate, to let your hogs remain suspended in the open air the whole night succeeding their slaughter. This will insure their being chilled to the marrow.

You can have nothing better to salt your meat down in than troughs made of the largest pine trees. Hogsheads answer very well, but barrels do not answer at all, as it is impossible to pack whole joints away in them without leaving large vacant spaces, which will prevent the brine from rising over the meat; a thing that is absolutely essential in this climate.

Your trough should be placed upon a perfect level, which can be done readily by pouring a gallon of water into it, and then wedging up the lowest end until the water is dispersed over the whole bottom.

As soon as your meat is cut out, (which every owner of hogs must be presumed to know how to do,) have two heaping tea-spoons full of pulverized salt petre rubbed upon the fleshy side of each joint, and one tea-spoon full upon every neck-chine and jowl.

Then rub your meat well with salt, (Turk's Island pretty well beaten, or pulverized, is the kind I use,) beginning with the hams. These should be placed in the bottom of the trough, as closely fitted into each other as

possible, (and they may be made to do it perfectly,) with the fleshy sides up. When you shall thus have covered the whole bottom of the trough with hams, sprinkle a plenty of salt over them. Do not be afraid of using too much salt. The meat can only absorb a given quantity in a given time, and whatever remains can be used for salting stock, &c. A bushel of salt to 800 lbs. of pork is the rule in Virginia, but I think it prudent to use more than that in this latitude. You will thus put in course after course of hams until the trough (or hogshead) be one-third filled;—then appropriate another third of the trough to shoulders, and the remaining third to middlings, chines and jowls. These can be filled up a foot above the edges of the trough. The skulls and other bloody parts should be salted separately.

If the weather should prove favourable, your meat will, in the course of a week, settle down very considerably, and the brine formed by it will rise above the highest course of joints. I think you need entertain no fears for its safety after this happens. Should the weather become very warm, however, within fifteen days after the salting, it will be prudent to see that no flies are about it; and even to displace some of the middlings so as to enable you to see one of the shoulders. Should this, and the brine prove pretty cold to the hand, and the joint appear to be attaining considerable firmness, disturb it no further. But, on the contrary, should the brine be warm and the joint spongy, your meat will be in great danger. It will then have to be spread out and the bone extracted. With good management, however, I believe this state of things will hardly ever come to pass.

At the expiration of three weeks, all the middlings and smaller pieces may be strung and hung up in your smoke house; and at the expiration of four weeks the joints may be taken out and strung. Splits of white oak make the best strings for this purpose that I have ever seen tried. After this is done, let each joint be very well rubbed with the ashes of hickory wood, and then hung up carefully with as much of the ashes adhering to the joint as possible.

It is very desirable that your smoke house be both large and high; otherwise, the heat of the fire may raise the temperature to such a degree as to injure your meat very seriously. I have frequently known bacon to be affected in this way. If your smoke house be built of logs, let it be perfectly well chinked and daubed with clay, and the roof be rendered as tight as convenient; otherwise the smoke will escape too rapidly.

Have a hole dug in the centre of your smoke house eighteen inches deep by three feet square, in the bottom of which the smoke must be made; and upon the joists, immediately over this hole, should be placed a platform, five or six feet square, composed of slabs or planks. The object of this is to prevent the heat of the fire from affecting the meat immediately above it.

Hickory wood chips is the best material to smoke with; a peck to a half bushel being sufficient for a day. These chips should be rendered very damp in order to prevent their burning too freely. A smoke is made by placing two chunks in the bottom of the hole, with their fire ends lapped together, the chips poured over them, and the whole covered three or four inches deep with damp sawdust. This last is absolutely necessary to prevent the fire from burning too freely. Indeed I consider saw dust (any kind will do) so essential in this process, that I would send fifty miles for it, rather than attempt to make bacon without it.

The smoke should be kept up throughout the day, but be permitted to go out at night, lest the temperature of the house be too much raised.

At the expiration of two weeks the jowls and chines must be taken down and put into barrels, or something else, as they would be injured by being exposed longer to the smoke. One of them will then be found to make a very excellent and convenient dish, especially if boiled with turnep-tops.

At the expiration of three weeks the middlings must be taken down and secured in like manner from the further influence of the smoke.

With regard to the joints, it is very difficult to smoke them too much, and they may, therefore, be continued under this process to as late a period in the spring as may be consistent with a due regard to their safety from the depredations of the skipper fly.*

Whenever your joints may be considered as sufficiently smoked they must be taken down and packed in hogsheads, barrels, &c. with the ashes of hickory wood;—the method of packing to be very much the same as in the salting process: except that, as the packing in ashes is designed in part to protect the meat from the ravages of skippers, bugs, &c. a more liberal use of the ashes must be resorted to than of the salt. Let the layers of meat be well separated by the ashes (say half an inch at least, but as much more as you please,) and all the space not occupied by the meat should be occupied by the ashes:

* With regard to these destructive insects, it is thought by many that a free use of the pods of red pepper, in the smoking process, will greatly retard their operations, if not entirely expel them from a smoke house. It is worthy of trial, but I do not give it as the result of my experience.

the topmost joint being covered at least two inches deep. Such bacon will keep as long as you desire.

Yours, respectfully,

Thos. S. Dabney.

Hinds County, 8th Dec. 1839.

From the Farmers' Register.

On Fattening Hogs, by Cold-Soaked and Fermented Food.

You complain very justly, I think, that many of your first contributors have grown weary in well doing; in other words, that their communications have fallen off in point of numbers. Although I myself am unconscious of being one of the culprits, I determined, immediately upon reading your remarks, to act as if I really was one, and felt anxious to evince my repentance by forthwith inditing to you an epistle of some kind or other; but could think of nothing, at first, that appeared worth communicating; luckily, however, in the midst of this quandary, I picked up at second hand, from a friend, something in regard to the mode of fattening hogs, which seems to be well worthy of notice.

First, however, I must tell you, that having, for a year or two past, enrolled myself in the fraternity of root-steamers for stock, (horses and sheep excepted,) my own experience is not yet sufficient to report to you any result of trials made by myself. I must farther confess that, as a novice in the steaming business, I still retain somewhat of that incredulity which I always feel relative to the benefits of any practice, when they appear to me so exaggerated as those do which are generally ascribed to the steaming process. But being open to conviction, and utterly condemning the old and common wasteful method of fattening our hogs, I was much gratified to hear the account which I will now give you of the mode practised by some gentleman, whose name I forget, in King and Queen or King William county.

One or more casks or tubs are nearly filled with alternate layers of chopped cabbages or roots, and broken ears of corn. Enough boiling water is then poured into the vessels, to cover the food. This is suffered to stand about twenty-four hours before it is given to the hogs, by which time some fermentation takes place, if the fattening process is commenced as early in the season as he commences it, which I understand he does long before frost. A constant supply of this food is given until a very short time previous to the hogs being killed, during which they have corn alone, which is generally deemed necessary to harden their fat.

By this method we may save the expense of steaming apparatus of every kind, such as have been heretofore recommended in our agricultural papers. It is true that some of these cost very little compared to the advantages derived from them; but this little, even in the cheapest that I have seen mentioned, is worth saving, if it can be done by some contrivance still cheaper, and preferable on other accounts, as the one which I have just described, appears to be.

I am gratified that I have it in my power to give you the foregoing information at this particular time; for I have long been convinced that we should probably save, at least half the expense of fattening our pork, if we would commence doing it by the first of September, or even sooner, and give much less corn than we generally do. To postpone putting up our hogs for the sake of the acorns and chinkapins that they may be able to find by incessant travelling about in search of them, is as complete an illustration as I have ever known of the old proverb,—"*penny wise and pound foolish:*" since to say nothing of the notorious fact that *hogs especially*, fatten much faster in warm weather than in cold, and when they can fill their bellies without having to travel miles for the wherewithal, (being the laziest animals upon earth except the gluttonous man, and his prototype, the quadruped called the sloth,) more of them are lost by theft, if suffered to run at large during the nut and acorn season, than would pay, twice over, the whole expense of feeding them in pens with food that costs us little or nothing, except the labour of collecting and preparing it. Even that portion of this stock which we call "*out hogs*" could probably be kept much more economically, if not suffered to run almost wild for half the year, and were supplied with food by their owners, instead of being left to supply themselves. As they are commonly managed, we may truly estimate the annual loss, in most cases, at nearly or quite half of the whole number; for many are killed for trespassing on our crops—starvation during three-fourths of the year, having taught them to be thieves; whilst a great number are stolen in the fall, after they get a little flesh on their bones, for a reason which I once heard alledged by an old negro in extenuation of the practice of stealing them, that "hog meat was so miserable sweet his fellow *sarvants* could not help stealing it."

Every man is responsible for his own acts, and for the acts of his agents, within the scope of their authority.

No one can change his mind to the injury of another.

Trust not a profane person.

Thou shalt govern many, if reason govern thee.

We have been kindly furnished by one of our valuable correspondents with the following letter, in manuscript, for publication in the Cabinet; it was published in some of the Journals of the day at the time when written, and will be read with interest by those of our subscribers to whom the author was personally known, and will be found to contain valuable information for all interested in the selection of seeds.

For the Farmers' Cabinet.

Important Information in Agriculture and Gardening.

In a letter from Joseph Cooper, of Gloucester county, New Jersey, to a gentleman in Philadelphia.

Coopers' Point, 17th April, 1799.

Respected Friend,—

Kind providence having placed me in a station of life which obliged me to procure a living by industry, and that principally in the agricultural line, it has caused me to be a strict observer of the works of nature, with respect to such parts of the vegetable creation as have come under my particular notice, and have been greatly embarrassed at the opinion very generally entertained by farmers and gardeners, that changing seeds, roots and plants to distant places, or different soils, or climates, is beneficial to agriculture, not agreeing with my observations or practice. This induced me to make many experiments on that head, all of which in more than forty years practice, have operated to prove to my satisfaction, that the above opinion is not well founded, and if so, must be extremely prejudicial to agriculture, as it turns the attention of the husbandman from what appears to me one great object, viz.—that of selecting seeds and roots for planting, or sowing, from such vegetables as come to the greatest perfection in the soil which he cultivates.

What induced me to make experiments on that head, was observing that all kinds of vegetables were continually varying in their growth, quality, production, and time of maturity. This led me to believe that the great Author of nature has so constructed that wonderful machine, if I may be allowed the expression, as to incline every kind of soil and climate to naturalize all kinds of vegetables, that it will produce at any rate, the better to suit them, if the agriculturists will do their part in selecting the most proper seed. In support of which I will take the liberty of subjoining a few facts and experiments, out of an inconceivable number, which have all combined to prove the above to my satisfaction.

In or about the year 1746, my father procured the seeds of the long warty squash, which have been kept on the farm ever since without changing, and are now far preferable to what they were at first. Our early peas were procured from London the spring before Braddock's defeat, and have been planted successively every season since on the place. They have not been changed, and are now preferable to what they were when first obtained. The seed of the asparagus was procured from New York, in the year 1752, since which time I have not planted a seed but what grew on my beds, and by selecting the seed from the largest stalks I have improved it greatly.

A complaint is very general, that potatoes of every kind degenerate, at which I am not surprised, when the most proper means to produce that effect is constantly practised; to wit, using or selling the best, and planting the refuse; by which means almost the whole of those planted are the produce of plants the most degenerated,—the consideration of which induced me to try an opposite method. Having often observed that some plants or vines produced potatoes larger, better shaped, and in greater abundance than others, without any apparent reason, except the operations of nature, it induced me to save a quantity from such only for planting the ensuing season; and I was highly gratified in finding their production exceed that of others of the same kind planted at the same time, and with every equal advantage, beyond my expectation, in size, shape and quantity; this induced me to continue the practice, and I am satisfied that I have been fully compensated for all the additional trouble.

A circumstance happened respecting potatoes which may be worth relating:—A woman whom I met in market requested me to bring half a bushel of sweet potatoes for seed, the next market day, which I promised to do; but going through the market on that day, previous to her son's coming for the potatoes, I observed the woman selling such as I had brought for her; when the boy came I asked him the reason they wanted potatoes for seed while they were selling their own; his answer was, that his father said, if they did not get seed from me once in three or four years, their potatoes would be good for nothing. Query, if he had used the same means in selecting his potatoes for planting as I did, whether he would have profitted by changing with one who used the other method?

In discoursing with a friend who lived at a great distance from me on the above subject, he introduced two instances in favour of changing seed, one was asparagus, the other radish seed he had from me; the production of both, he said, was preferable to any thing of the kind ever seen in that neighbourhood, which was near one hundred miles distant, to which he ascribed the benefit; but in two or three years the radishes degenerated, so as to be no better than what he had before: I asked

his method of saving seed: he said he had no other radishes in his garden, and when they had pulled what was fit for use, let the others go to seed. I then told him my method, namely:—As soon as radishes are fit for use, I dig up ten or twelve of those which please me best, as to colour, shape, &c., and plant them at least one hundred yards from where any other blooms at the time they do. This, I informed him, was the best method I knew of to improve any kind of vegetables, varying the process agreeable to their nature; and as he had, in my opinion, taken the most proper method to degenerate his, I asked if he thought I should be benefited by exchanging with him? His answer was,—he believed I was the best gardener. In or about the year 1772, a friend sent me a few grains of a small kind of Indian corn, the grains of which were not larger than goose shot, which he informed me, by a note in which they were enclosed, were originally from Guinea, and produced from eight to ten ears on a stalk. Those grains I planted, and found the production to answer the description, but the ears small, and few of them ripe before frost. I saved some of the largest and earliest, and planted it between rows of larger and earlier kinds of corn, which produced a mixture to advantage; then I saved seeds from stalks that produced the greatest number of the largest ears, and first ripe, which I planted the ensuing season, and was not a little gratified to find its production preferable both in quantity and quality to that of any corn I had ever planted. This kind of corn I have continued planting ever since, selecting that designed for seed in the manner I would wish others to try:—viz. when the first ears are ripe enough for seed, gather a sufficient quantity for early corn, or replanting, and at the time you would wish your corn to be ripe generally, gather a sufficient quantity for planting the next year, having particular care to take it from stalks that are large at bottom, of a regular taper, not over tall, the ears set low and containing the greatest number of good sizeable ears of the best quality; let it dry speedily, and from the corn gathered as last described, plant your main crop, and if any hills should be missing, replant from that first gathered, which will cause the crop to ripen more regular than is common, which is a great benefit. The above method I have practised many years, and am satisfied it has increased the quantity and improved the quality of my crops, beyond what any person would imagine who has not tried the experiment. The distance of planting corn, and number of grains in a hill, are matters many differ in; perhaps different soils may require a difference in both these respects; but in every kind of soil I have tried, I find planting the rows six feet asunder each way, as near at right angles as may be, and leaving not more than four stalks in a hill, produces the best crop. The common method of saving seed corn by taking ears from the heap, or crib, is attended with two disadvantages; one is, the taking the largest ears, which have generally grown but one on a stalk; this lessons the production. The other is, taking ears that have ripened at different times, which causes the production to do the same. A striking instance of plants being naturalized, happened by Colonel Matlack sending some water-melon seed from Georgia, which he informed me by letter were of a superior quality. Knowing seed from vegetables which had grown in more southern climates required a longer summer than what grew here, I gave them the most favorable situation, and used glasses to bring them forward, yet very few ripened to perfection; but finding them to be as excellent in quality as described, I saved seed from those first ripe; and by continuing that practice four or five years, they became as early water-melons as I ever had.

Many admit the above errors from foreign flax seed producing the best flax in Ireland; but when it is considered that it is the bark of the stalk only that is used in Ireland, which is in the best perfection before the seed is ripe, and that part not used from any other plant except hemp, the argument falls to the ground when applied to other vegetables. For many years past I have renewed the whole seed of my winter grain, from a single plant which I have observed to be more productive, and of better quality than the rest, which I am satisfied has been of great use, and I am fully of opinion, that all kinds of garden vegetables may be improved by the foregoing methods, particular care being taken that different kinds of the same species of vegetables are not in bloom at the same time near together, as by that happening, they mix, degenerate, and each kind is injured. I am sensible the foregoing will meet with great opposition and contradiction, but as an experiment is safe and easy. I hope it will induce persons of more leisure, ability, and observation than myself, to make trial, as a mean of improving the agriculture of our country, which is the sincere wish of thy friend.

Joseph Cooper.

[Our correspondent who furnished the above will oblige by calling at our office at his convenience.]

The first principle of good speaking and writing, is good thinking.

Visionary minds swarm with impracticable projects.

ROOTS—Necessity of other products besides Indian Corn for stock—Importance of judicious Rotation—Farming in England.

Maplewood, near Lexington, Nov. 23, 1839.

To the Editor of the Franklin Farmer:

DEAR SIR:—Much attention seems to be directed at this moment, in this State and elsewhere, to the importance of introducing some auxiliary crops, to supply certain qualities of nutriment, in which our old staples are deficient; and in case of a default of these, to stand in the place of substitutes for them. Those who have bestowed care upon any of the domestic races of animals, well know the advantage, summer and winter, of feeding, in part, with succulent food. The vegetable juices which it contains, seem to be as much relished by these animals, as the most savory gravies by their intelligent owners. That they aid in the preservation of health, is sufficiently demonstrated in the superior condition of animals which are fed upon them. The skin of these, soft and pleasant to the touch, is entirely free of scurf, and their hair, smooth and silky, shines with a natural oil. In this section of Kentucky, we are, perhaps, as well supplied as any other portion of the Union with this valuable description of food. The common rye, which is now generally used for winter pasturage, appears to be exceedingly nutritous, and stock of all kinds graze it with avidity; and we have besides, a wonderful resource in the beautiful bluegrass, which, like a mantle of charity from on high, covers our country, even in the bleakest weather, with an exquisite and delicious verdure. Rye and bluegrass, in fact, upon large farms, and when the season is propitious, are nearly all that the great farmer wants. But our fall and winter pastures, are not always equally good; snows are of uncertain duration; and many small farmers cannot allot a sufficient portion of pasture for winter use: and in all cases, especially where labour is more abundant than land, the cultivation of a judicious assortment of roots would well repay the farmer for any trouble and expense that it might cost. But another weighty consideration, which may be mentioned in favour of introducing the general use of roots as an additional farm crop, is, that from the different time of seeding and maturing, it is very likely that the root crop would often hit when the grain would fail, and thus roots which are themselves sufficient for stock, without either other food or water, would rise in the scale from the second to the first place in the husbandry of years of scarcity. It is unnecessary to enlarge upon this topic. Experience has impressed it upon the minds of most of us, that small grain, in our climate, is precarious, and the annual variation of price indicates but too plainly that even Indian corn, our staff and support, is not absolutely sure to reward the farmer with a full return. During the present year, it is said, large droves of our stock have been sent to distant parts in quest of grain, and thus many farmers in the present season have not only lost the benefit of personal inspection and care of their stock, but besides, have been obliged to yield the great advantage they would have derived from the manure of animals stall-fed upon their own land. In the quality of manure, aptly called "the sheet anchor of agriculture," roots are fully equal to other descriptions of food; and the great quantity of liquid manure which they produce, tends greatly to hasten the decomposition of all the other contents of the farm yard.

Were it only necessary to find new crops to render the chances more promising of a full return, I think it not unlikely that the horse-bean would answer the purpose. It is greatly cultivated in England and France, and I have often seen it growing in our American gardens, with as much apparent luxuriance as it attains in the fields of either of those countries. In Europe it is of easy culture, being sown in various ways, either broadcast, drilled or dibbled. It is put in the ground about the time of sowing oats, and hundreds and thousands of acres teem with the production of it.

Roots, however, are superior to this article for most of the purposes to which I have above alluded; and it is no doubt bad practice to multiply greatly the products of a farm, except when the condition of the land requires it. But admitting the fact, that the wise division of labour and the application of attention and means to one or a few productions is as essential in the conduct of a farm as in any other branch of human affairs, still, in different soils and exposures, different crops may be expected to succeed, and it is only by the success of the aggregate of a nation, that the horn of plenty is made to overflow.

Many farmers, unfortunately, have been deterred from the root culture, or have abandoned it after insufficient trials. The chief difficulty attending it lies in the proper selection of roots. A very safe mode to determine which are the best in any particular situation is, to apply the touchstone of experiment; and here we are greatly facilitated in our inquiries by the sister science of gardening. Our gardens, in fact, answer nearly all purposes of trial. In this section, for instance, I find by reference to my garden, that beets, carrots and parsneps succeed best of the roots; that potatoes do well, and that turneps are exceedingly precarious and could not by any means be relied on. The familiar volume of experience is therefore easily read and ap-

plied. But at this point, the investigation becomes confused, and it is difficult to proceed. Among the numerous varieties of these roots, which are of the easiest culture and afford the greatest yield? What crops do they best precede, and what should they be made to follow? These interesting inquiries cannot yet receive a satisfactory solution in Kentucky. When the root culture has been long practiced as a branch of agriculture, a new volume of experience may be compiled, containing the best roots and the best varieties of each root, for different situations. In this part of the Union, the science is still to be ascertained and deduced from faithful experiments. Perhaps it may not be amiss to state that in foreign agricultural works, the mangel wurtzel is maintained by many to be superior to the Swedish or any other turnep for farm purposes, and that it is generally admitted to be better for a clay soil. That carrots, though the acreable product is not so great as is the turnep, are thought to be the best food known for improving the wind and endurance of horses—that recent statements would seem to indicate that the sugar beet, the white variety of the mangel wurtzel, will answer well in many parts of our State.

In spite of a great desire to conclude this desultory letter, with your permission, I will cite as an example of the application of knowledge of the character I have been treating of, the system of farming pursued in a fine farming district in England, which came under my personal observation during a visit I made that country in 1835-6. The district I mean is in Yorkshire, not very distant from the old city of York. The rotation of crops is admirably adapted to the soil and climate, and the stock which consume them are selected with such judgment, and so used, that they may, in fact, be said to labour in the immediate melioration of the soil. Indeed I saw here combined in an improved system of husbandry, the results of a most extraordinary success in culture and breeding, acting and re-acting upon each other. In Kentucky, we have always appreciated the skill which is applied in breeding and rearing fine varieties of stock, but we have, no doubt, generally been too indifferent to the importance of a judicious succession of crops. I think it was remarked by General Washington, that "any system in farming is better than no system;" and a Briton has truly observed, that a proper rotation of crops "remedies all confusion, distinguishes and arranges the season and the appropriate mode of work, economises labour, reciprocates the improvement of both soil and stock, and forwards the interest of both landlord and tenant."

I am satisfied that no American could have seen with my eyes, without drawing the conclusion I did, that a good rotation of crops for the different sections of our country, is a subject of momentous importance. But to return from this digression. The practice pursued in the district I have mentioned, is called the Norfolk system, and depends for its success upon the alternation of green and white crops. From this circumstance it is called by some "the alternate system." The most common rotation is the following, viz.: turneps, barley, clover, wheat. But besides the principal succession of white and green crops, in continuing this system, a change is made for the purpose of resting the land, in the particular green and white crop used in each year, or otherwise the clover is suffered to remain for two years, and is pastured instead of being mown. On the clay soils, in this district, liable to poach, the turneps are drawn and carted, or the crop is omitted altogether, and beans or some other substituted for it; but on sandy soils they are fed on the ground to sheep folded upon them. On the latter description of land, a wonderful improvement is wrought, and it was upon such a soil that I saw the greatest melioration I ever beheld effected by judicious culture. It elevated very much the opinion I had formed of agriculture as a science. On one side of a hedge I saw the finest crop of Swedes imaginable, the drills twenty-eight inches apart, clean as a garden, and the turneps touching in the rows with scarcely an omission. On the other side a howling waste of sand. This glorious field of turneps was produced by the rotation I have mentioned.

The preparation for the turnep crop is very simple. The drills are formed, and bones, broken up in mills, are laid in them at the rate of from fifteen to twenty-five bushels an acre. They are often mixed with ashes and distributed with regularity by a drill machine. The turnep seed is then sown on the top of the drill at the rate of three pounds to the acre.

When the roots are ready for use the tops are cut off and carried to the straw-yards to be consumed by cattle, and a small fold being formed of rope netting or hurdles, the sheep are introduced. These eat all the bulb, except the lower part, which is raised from the ground with a small prong and also carried to the straw-yards. The sheep are then removed to another part of the field, and so on, till the whole is gone over. The kind of sheep which I saw used here were the New Leicester, a sheep of great bulk, which yields the much esteemed combing or long wool of England, but of which the mutton, to my palate, is coarse and rank. It is, however, a profitable sheep to raise, both for its wool and flesh, and I was informed that those who were

engaged in sheep-farming were more prosperous than most other farmers. The New Leicester mutton bears, in my opinion, about the same relation to the South-Down or to our common Kentucky mutton, that the middling of the hog does to the ham, and perhaps might be useful here for the same purposes for which middlings are used. However this may be, on a sandy soil the New Leicester sheep is a capital laborer. Besides the great value of his manure, which is equally distributed by the practice of folding, the land is very much improved by the tramping and packing and incorporation of the manure with the soil effected with his feet, and which is called in one word the *management* of the land.

Besides being fed to the New Leicester sheep, the most artificial animal probably in existence, the turneps raised on the farm on which my observations were principally made, were also fed in considerable quantities to the admired Short Horn Durham cattle. When fed to these last, they are given about at the rate of two or three bushels a day, together with straw or hay to each full grown steer.

The mode of farming above described, borrowed originally from those excellent farmers, the Flemish, would not entirely apply in this part of the State, but in many parts of Kentucky and the Union, particularly on light sandy soils, the practice of a similar system would effect a great change, and even here some of its principles might be used with advantage.

In viewing the many beautiful farms with which this district of Yorkshire abounds, that were once considered worthless, I was induced to believe that there is not so much difference in the intrinsic value of land, as is generally supposed. Some lands, deemed dead for useful purposes, in fact only lie dormant until the appropriate system is applied, when they begin to reveal a wonderful and unexpected fertility.

The introduction of the turnep, suiting as this root does her weeping climate and much of her soil, has been of incalculable benefit to England. It is now actually the case that lands which rented for shillings, now rent for pounds; and what were once barren wastes, are now among the most profitable soils for cultivation. Bones are conveyed from all parts of the world to the ports of that country; Brazil has furnished a good supply, and even the United States have contributed to the crushing mills of Britain. I confess I have never seen an account of vessels carrying out bones to Europe, without feeling pained by the reflection that they were precisely the best manure for some of our own lands. I have sometimes looked forward with gratulation to the day when a regeneration shall be effected in certain parts of America by skilful agriculture; when those parts of the Union, now deemed barren and almost worthless, shall rise in the scale and furnish their full quota of production. If turneps will not suit the soil and climate of the West, perhaps they would answer at the East; and who would not rejoice to see the sands of North Carolina, Virginia, New Jersey, Delaware and Maryland, covered with countless flocks of sheep, an animal furnishing as it does, both food and raiment, precisely the best suited for a dense population! Who would not be pleased to see the manufacture of wool more extensively prosecuted, and the fabrics of American looms more generally used by a healthy, prosperous and happy population!

But the great change effected in the condition of England, and which might probably be wrought by similar means in some sections of the Union, has been produced, like a magical delusion, by the use of an easy system, and is but one result of scientific agriculture. Happy the day, when the soil shall be considered, as in truth it is, a great *terra incognita*, full of wonders and pregnant with untold blessings to mankind.

I remain, dear sir, your ob't serv't,

HENRY CLAY, JR.

For the Farmers' Cabinet.

Cultivation of Locust Trees.

MR. EDITOR,—I am now ploughing a field of ten acres of old worn out ground, which has been lying idle for a number of years, for the purpose of planting the same with the Locust tree, not knowing the true method to be pursued in the cultivation of the Locust. I therefore have taken the liberty of addressing you upon the subject for information, through the Cabinet, of the best mode and time of planting, and the quantity of seed per acre.

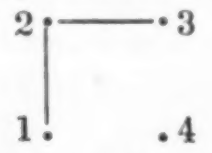
FRANKLIN HAND.

Cape May C. H.

We hope some of our correspondents or friends will furnish the very desirable information, solicited by our friend Hand. The sources from whence the supplies of this valuable timber have been derived, are rapidly diminishing; while the demand, from the extensive use made of it in the construction of rail roads, &c., is annually increasing. We have no doubt those who have unoccupied lands adapted to its growth, would find a profitable investment by sowing it with the Locust.

A Useful Hint.

Mr. Editor,—I am persuaded that many farmers feel fully convinced of the *truth* of many valuable reports which come from the experienced and scientific agriculturist, but which are often of very little benefit from the difficulty of making experiments upon their own farm. I beg leave to suggest a very simple plan that will bring what may be dubious to a matter of fact, with very little trouble and at a trifling expense. Take twenty-three yards of common twine, tie a stake of about sixteen inches long, (sharpened at one end to enter the ground) in the middle of the twine—then place two other stakes, each at eleven yards from the centre one—now place the three stakes in the ground, as represented below:



Mark the outside of the two lines with a spade or hoe, then take up No. 2 and place it at No. 4, and mark the two lines as before, and you have eleven yards square (121 square yards,) the fortieth part of an acre. This mode will test an experiment as well as eleven acres—eight bushels of manure applied, will be at the rate of 320 bushels per acre, ten bushels at 400 bushels per acre, &c. Such patches, on repeated trials, will afford evident proof of the *utility* and *proper quantity* required to an acre of lime, marl, plaster, bone dust, &c., as manures for different plants; and by arranging the plants at different distances, you will find the best mode of *planting* or *sowing*.—*Ame. Farmer.*

THE FARMERS' CABINET.

PHILADELPHIA, JAN. 15, 1840.

The Publishers owe an apology to their subscribers for the late appearance of this and the last number of the Cabinet. The delay has originated in some recent changes and consequent derangement in the business of our establishment. Our affairs are now in such a train as will secure the regular and punctual issue of the future numbers of our sheet. Among the changes alluded to, is the retirement of Francis S. Wiggins, Esq., from the editorial management of the Cabinet. We have the pleasure of informing our friends, that arrangements are in progress by which we expect to secure the influence and services of a gentleman, who, in addition to the numerous and excellent qualifications possessed by the former editor, will bring the superior advantages for such a work of an *extensive, sound, practical experience* in agricultural pursuits. When our arrangements are complete, and we can announce the name of the future editor, our subscribers will receive a sufficient guarantee that the former character of the Cabinet will be *fully sustained.*

Several communications were furnished by our attentive correspondents for the present number, which have not come to the hands of the publishers. They will be given to our readers in due time. In our December number several articles were promised to appear in this, but they have not been furnished by the retiring editor, and this must be our apology for their non-appearance. We respectfully and cordially invite our numerous contributors to continue their favours, for it is to them that we mainly attribute our past success—on them we still rely for aid to enrich the pages of our future numbers.

Since we commenced the publication of the Cabinet, some *ten* or *twelve* periodicals of a similar character have been commenced in this State and those adjoining. We have sustained towards them the most friendly relations, and lived to see the most of them "*go the way of all the earth.*" This circumstance may serve to show our friends the difficulties usually attending the establishment of works of this kind. Those difficulties by us have been surmounted, and our books exhibit a numerous, respectable, and we trust, permanent list of subscribers; from whom the Cabinet in its monthly visits will continue to receive a friendly greeting.

The sixth number of our fourth volume is now issued, and from the fact that a large part of the Cabinet has been stereotyped, we can always furnish complete setts from the commencement. The volumes already published contain a great many facts, experiments and opinions, that constitute a small library for reference, valuable to every *reading farmer.* We earnestly solicit the aid of *friends* and subscribers to extend our circu-

lation. Although, probably, we have a larger number of subscribers than any other agricultural paper has obtained in this state, yet our list is far short of what it should be, in order to enable us to make the Cabinet what is reasonably expected from works of the kind in this age of advancing science and agricultural improvement.

If each subscriber, friendly to the objects of the Cabinet, will recommend it to his acquaintance, solicit their subscriptions, and remit to us the money, (retaining the usual allowance to agents, *for which see terms,*) the work is done, and we shall "go on our way rejoicing;" our labours will be pleasant, and we shall enjoy the satisfaction of contributing *our mite* to promote among our readers a more intimate knowledge of agricultural science, and thereby in some degree, serve the true interests of our country.

Great Yield.

We have received the following account of the produce of one pumpkin seed from a source entitled to implicit confidence. It was planted by Mr. John B. Cox, of Medford, Burlington county, N. J. We opine that our friend Cox is a lover of pumpkin pies, or at least can claim some affinity to the Yankees in the art of cultivating the pumpkin.

Weight of No.	1,	- -	177 lbs.
Do. do.	2,	- -	118 lbs.
Do. do.	3,	- -	110 lbs.
Do. do.	4,	- -	81 lbs.
	Total,	- - -	486 lbs.

Improvement in Baked Beans.

Mr. Holmes.—As you have had the satisfaction of cutting and slashing your redoubtable "Rohan," and feasting yourself and others with it, I think perhaps to their and your heart's content, I would suggest a change of diet—I mean Baked Beans. Prepare them as is common before putting them into the oven, then add three spoonfuls of molasses to about two quarts of beans, stir them well together as usual, and I will be bound you will have a dish which may well be coveted by those who have been feeding on your "Rohan" or on beans baked in the usual way. Try it gentlemen, "no mistake."—A Lover of Beans. [*Maine Farmer.*

Cultivation of the Sugar Beet.

The following observations on the cultivation of the Beet are extracted from a pamphlet furnished us by the author, with only the *initials* of his name appended. But if we are right in our conjectures, it is from the pen of a gentleman of this city, who arrives at no conclusions without "*deep research,*" and "*close calculations.*" The pains taken by this individual to introduce improved grains, seeds, &c., and the liberality with which they have been distributed, entitles him to the gratitude of his countrymen, especially the farmers of this vicinity. We commence our extracts by giving his rules for the

CHOICE OF GROUND.

Beet thrives in the soil suited to the potato, to wit: in all soils that are somewhat sandy and loamy—these soils mixed with vegetable mould and decayed matter are particularly suitable. From land essentially sandy, much cannot be expected, unless it be highly manured; under these circumstances we have seen a good crop growing in New Jersey. In the absence of manure the roots will be small, but where they grow fresh and healthy, it has been found that small plants yield a large proportion of sugar—but this by no means makes up for the want of mass, and therefore with this as with other crops—it is proper to use land naturally or artificially good, to insure large returns. Clay may be added to sandy soil, and sand mixed with clay ground, to correct their defects, but the process is expensive.

Where land is essentially stiff clay, it is not suitable for beets, because the seed germinates badly and the root finding it difficult to penetrate and imbed itself, becomes forked and rises too much above the surface, whereby it is too much exposed to the sun and atmosphere, which dispose it to become hard and reedy. One of the evils attending forked roots is, that stones, gravel and earth get enveloped in the interstices, and thus blunt and injure the machine that is employed to reduce the roots to pulp, when the object is to make sugar. Clay soils are improved by deep and frequent ploughing and harrowing; the manures best suited to this kind of ground, are half rotted straw, fresh stable dung, leaves, &c., and sand can be employed to advantage, where it can be had with little labour, the quantity required to produce useful effects has to be very considerable. In France calcareous soils are not considered suited for growing beets. In America we may mistake what the French refer to, when

on this occasion they use the term "calcareous;" possibly it may be by them applied to chalk soil, a kind of land we have none of, and not refer to the limestone land that abounds here, and is justly held in high estimation, as it answers well for all crops. The farmers of America must not be deterred from trying to cultivate beets on limestone land, because it is said of other countries, calcareous soils are not suited for growing that root; in this, as in many other cases, we must determine the fact by our own experience. Here, on limestone land, the beet may suffer from drought, but all crops grown upon it are exposed to the same effects. In France, the products of different soils vary very much, and are greatly influenced by better or worse management, the difference rating from fifty to two hundred.

PREPARATION OF THE GROUND.

This will vary according to the nature of the soil, and here, as in all other departments of the farming business, much of the success depends on the skill and judgment of the farmer. In many cases, three ploughings will be necessary, and one of these ploughings should be before winter, that the turned up soil may be mellowed by the frost, the last ploughing has to be in the spring immediately before planting the seed; two ploughings in this country will be found sufficient; in all cases it should be well harrowed, and rolling will be an improvement that amply repays the expense. Deep ploughing is generally useful, but the farmer has to consider the nature of the substrata. It would be improper to turn up much of the poor clay or gravel bottom, and where the substrata is an open sand, deep ploughing is not required. Manure, in which the process of fermentation has not advanced far, will answer best for beets, nevertheless all kinds are useful; but the half rotten best divides the soil and suffers the roots freely to expand. In the state of Delaware, marl has been found an excellent manure for beets, and marl is found in many places in the low light soils on the Atlantic coast south of Sandy Hook. Some farmers in France allow the beet leaves that are cut off at harvest-time to remain on the land, and consider them a tolerably good manure, but this practice is not so good as having them carted into the barn-yard to be eaten and trodden on by the cattle. It will be found that straw of any kind when properly laid into the furrows and covered with the mould, will give good crops; and this open species of manure is suited to clay soils and the beet root. The roller is especially necessary on clay soils; by it clods are well broken, which favours the coming up of the plants, and facilitates the future hoeings and horse-hoe weedings.

OF SOWING.

There are four ways of sowing beets, first in beds as in a nursery; second, broad cast as in sowing wheat; third, sowing or dropping by the hand in drills; and fourth, drilling by a machine.

By the first of these methods the whole of the seed is sown on a small portion of land compared with what it is intended to occupy; these plants will be fit to pull up and plant out where they are finally to remain, in a month or six weeks from the time of sowing; this planting is performed by means of a dibble with which holes are made in the ground, always a little deeper than the length of the plant that is to be put into them, and with this dibble the earth must be carefully pressed close to the root. This method is attended with several inconveniences; it requires much manual labour, the roots are exposed to injury during the process of transplanting, and if the root is bent in the planting the beet will form badly, and in place of having the shape of a cone will be deformed and unthrifty with numerous roots filled with earth, which will be detrimental to the crop, whether used for feeding cattle or employed to make sugar. This mode of sowing should be thought of only where seed is scarce, the quantity to be sown not great, and labour easily procured.

Broad cast. This manner is the simplest, but requires a large quantity of seed, and will be expensive where that is dear, and seed in the European market, has on some occasions been five times dearer than on others. In this practice it will be found that six pounds of seed will be required, were two and a half or three would have been enough when planted in drills by the hand. The whole of the soil in the broad cast sowing is occupied, but it is difficult and expensive to hoe the crop, and keep it free of weeds, and the produce is never as great as by the following method.

Rows or drills. The little furrows into which the seeds are to be dropped are made by a harrow, having the teeth at the distance one from another that the rows of beets are intended to be from each other and the seed is dropped two or three into the drills at the distance of twelve to eighteen inches apart from each other. This work can be performed by young people; in France it is most frequently done by women, as more dependence can be placed in them than in boys. After the planting is finished, the seeds are covered by having a light harrow with plenty of teeth in it drawn over the ground. In this way there is a great saving of seed and the

plants are regularly spaced. Four women will plant an acre in a day. By using a drill drawn by a horse, the labour is very much abridged and the work will be expedited. This machine is very important to those who plant large fields; in the large sugar-making districts it is used with great success, it is of various forms and merits, the plans have not yet been brought to this country. Some French farmers place the rows twenty-four inches apart, perhaps thirty will be found a more convenient distance for the horse-hoe, cultivator, or harrow. In fixing the distance that is to be between the rows, reference should be had to the kind of horse-hoe that is to be used in keeping the crops free from weeds. The distance in the row may be from twelve to eighteen inches. When the plants are far from each other the roots will grow to a large size, and the contrary will result from planting them close. By careful observation farmers have to learn the distance that will produce the largest quantity, and best quality of roots on their respective soils. The seed should be planted at the depth of from one to two inches. Experience has proved, that at a greater depth especially on heavy soils, it is not sufficiently exposed to the action of the air, sun, and moisture; without which it will not germinate well.

TIME OF SOWING.

This depends on the position of the place and nature of the soil; as a general rule, the earlier the better: Provided, the land is dry and in proper order, early sowing is particularly important when the object is to make sugar, because the roots arrive sooner at maturity and allow the process of crushing to commence early. In France it has been found that in September and October the greatest quantity of sugar can be extracted from the roots. In the United States, the nature of the fall season, is very suitable for making sugar. The season for working here will be longer than it is in France, this will favour the manufacture here when it becomes a business. In Pennsylvania, beet sown so late as the first ten days of June came to perfection, but late sowing exposes the young plants to be injured by the drought of that season, and the heat of the sun; we have heard of an instance where by accident some beet seed had been dropped in the fall and remained in the ground all winter, and in spring vegetated well, and yielded a good crop. This accident suggests the trying how far it would answer to sow a part of the crop in fall, so as to have an early crop, and what the result would be of having from this early sowing, the ground well covered with leaves before the summer's hot sun comes on. If fall sowing shall be found to answer, it would be of advantage to the farmer, by allowing him to have a part of the spring work done in a season in which he is not much hurried. This fall sowing should not be performed until late in the season, when all probability of warm weather has passed away, so that there might not be heat to germinate the seed before the cold and frost set in.

OF HOEING.

Few plants suffer more than the beet from neglect, and the baneful influence of weeds in the first stages of its vegetation. The ground therefore has to be kept free of weeds, and it should be kept mellow during the first stages of the plants' developement. Beets require one or two hand thinnings, and as many hand hoeings. The first of the hoeings should be about when four or five of the leaves have put out, the second in from three to five weeks afterwards. Here it is proper to remark, that each of the burs that are planted is a cluster containing sometimes as many as four seeds; this is to be perceived by breaking one of these burs, in it will be found several small grains of white flour, and each gives out a separate plant. Mice are fond of this flour and will destroy the seed if they can get at it, all the plants save one must be pulled up at the time of hoeing, if not properly thinned there will be a cluster of leaves but very small roots, where there are blanks, they should be filled up with those pulled up from where there are too many. After the rows have been carefully freed from weeds and properly thinned, the horse-hoe, cultivator or drill harrow can be advantageously run between the rows. The horse-hoe, &c., has to be some inches narrower than the distance from row to row, and after each horse-hoeing, a person should go along the rows with a hand hoe, and remove the earth from such plants as may have had it thrown on them by the harrow, &c. If any of the beets should show a disposition to shoot out into the seed stalk, this must be stopped by cutting off these stalks, because this growth would be at the expense of the root. Some persons pull off a portion of the leaves to feed their cattle, the leaves also make excellent greens for the table, it is probable that taking these leaves is some detriment to the roots.

HARVESTING.

The season for taking up the roots will vary with circumstances and localities, early and late sowing, &c. &c. In France, beets ripen and the making of sugar commences about the end of September or beginning of October, and the evidences of the plant being ripe are the falling down of the leaves, and those of a bright green turning yellow and

brown. The influence of drought may bring on these appearances; the observing farmer will understand when this change is caused by heat, or want of moisture, indeed he has to attend to the weather and the appearance of the approach of winter that he may take advantage of all the growing season, and at the same time not be too late in harvesting, and thereby expose the crop to be injured by frost. The roots should be pulled by hand or assisted by the spade when necessary, and the person that pulls them must shake the earth off them, and be careful not to strike one against another or in any way bruise them; bruising has the same effect on beets that it has on apples, in both cases it disposes them to rot. The person who pulls the beets should cut off the tops with a knife, being careful not to cut the beet. The leaves being cut off lessens the disposition of the root to vegetate, and it prepares them to be housed. The beets should lay on the ground until they are dry before they are housed.

PRESERVATION.

The roots must not be left long on the ground exposed to air, heat and moisture; much heat or cold are both found detrimental, as a heat of fifty-six or sixty degrees Fahrenheit in damp weather, will produce a fermentation sufficient to reduce the quantity of saccharine matter, and on the other hand, beets freeze very readily, so that only a few degrees below thirty-two will dispose them to rot.

The best aired cellar is not better for securing the beet than a judiciously made pit, wherein the beets are stored and covered with the earth that was dug from the pit. The dimension of pits may be varied to suit circumstances. It is most prudent not to make them large, because if from any cause a part of the contents of a pit begins to spoil, the disease is contagious and will spread through the whole mass. They may be made from four to five feet wide and eight, ten, or twelve long. One to two feet is deep enough, this hole is to be filled with beets, and piled up until they form a ridge, and the whole is to be covered with the earth dug from the pit, a drain should be cut round the heap, to carry off all water, it being of importance, that the beet be kept dry, and for this reason, ground naturally dry should be selected for the pits—perhaps in our severe climate it may be necessary to spread a little straw or corn stalks on the outside of the heaps, to keep out frost; if put inside it might rot and spoil the beets, and it may be useful to open the pits from time to time to air and keep them fresh, and if any are observed to spoil, they should be carefully taken out. The preserving of beets is the most difficult of all the branches connected with them.

GROWING OF THE SEED.

As the beet is a biennial plant it is only in the second year that it produces seed. The proper time for choosing the roots from which the seed is to be produced next year is, when taking up the crop; these should be healthy, somewhat above the medium size in length and thickness; well formed and no ways forked, and of a fine light colour; (if for sugar perfectly white,) they should be kept through the winter in sand or dry earth, and placed in a temperate barn or cellar equally guarded from the influence of heat and cold. In the neighbourhood of Philadelphia, they should be planted out in March, or so soon as the land is in good order, and at the distance of two or three feet apart, this will be sufficient space for yielding the roots and leaves the requisite nourishment; the stalks will rise from three to five feet, and the branches being liable to split off, and break down, have to be supported by sticks or frames. When the seed is ripe, which will generally be in September, the stalks are cut off, tied into bundles, and hung up, or laid over fences to dry—and then the seed is beaten off by switching the sheaves over a board set on its edge, or it may be threshed. In France the seed is removed from the stems by hand, taking care to leave the small seeds that grow towards the outer end of the branches, as these seeds do not ripen well in that climate, which is moister than that of the United States. The next process is to expose the seed to the sun, and then it is put into sacks and kept in a dry place, where mice or vermin shall not have access to it. The average yield of plants in France is from four to six ounces of good seed. The beet in this country has been found to produce very good seed—it will therefore be prudent and a saving for farmers to raise enough for their own wants. And for some time, in all probability, it will be a profitable branch of business to raise some for sale.

[We shall give the concluding remarks in our next number.]

Cheap efficacious Manure.—Raise a platform of earth on the headland of a field, eight feet wide, one foot high, and of any length according to the quantity wanted. On the first stratum of earth, lay a thin stratum of lime fresh from the kiln; dissolve or slake this with salt brine from the rose of a watering pot; add immediately another layer of earth, then lime and brine as before; carrying it to any convenient height. In a week it should be turned over, carefully broken, and mixed, so that the mass may be thoroughly incorporated. This compost has been used in Ireland; has doubled the crops of potatoes and cabbages, and is said to be far superior to stable dung.

A writer in the "Newark Daily Advertiser," under the head of "*Statistics of Political Economy*," gives the following estimates of the population of the United States and the sources from which they obtain their livelihood. It strikes us that the number here set down as engaged in *productive occupations* is small; but we let the writer speak for himself.

The following table I have compiled, after numerous and extensive inquiries, and from a long course of observation and extensive personal knowledge. Absolute certainty, or even a near approximation to the facts, are, perhaps, unattainable, but it is hoped the view here given will be found valuable, and may lead to more important and more correct investigations.

I estimate the whole population of the United States to be	16,000,000
Between the ages of eighteen and fifty, and capable of labour, of the male population,	2,000,000
Of the two millions, those who labour at some *productive* occupation, agricultural or manufacturing, are	1,655,500
Living on the income of offices, rents, and use of property, interest of money, and on many pursuits, useful and honourable, but not productive, as will be explained hereafter,	344,500
Making, - - -	2,000,000

In making up the number of 344,500 who live independent of any productive occupation, I estimate all officers of the general and state governments; all persons employed in the army and navy; all officers in banks, insurance and all other companies; all physicians, divines, and lawyers; all teachers in colleges, academies, and schools; all persons employed in navigation, or otherwise, as carriers or transporters of merchandise; all merchants and merchants' clerks; all hotel and boarding house keepers; in fact, all however useful and honourable their occupations may be, unless their labour tends directly to produce something from the land, the mines, forests, and fisheries, or to add extra value to these rude products, by some process of manufacturing.

In this view of the subject I think it will readily be conceded that I have not over-estimated the number of the unproductive class at 344,500; of these, 120,000 live by office or income, without rent or interest money.

And 224,500 live on the income of rents and interest money; and altogether they receive from the productive labourers a sum about equal to $290,000,000 per annum.—Southern planters are included in the number of those who receive rents for real estate.

120,000 who live on office or on occupations, exclusive of interest or rents, at $500 each on an average, comes to	$60,000,000
224,500 who annually, in interest and rents, receive the sum of	$229,710,000
Making a sum total of -	$289,710,000

For the Farmers' Cabinet.

Receipt for making Deshler's Salve.

"Always have some balsam and salve on hand for current use."

Deshler's Salve has maintained a highly deserved reputation in and about Philadelphia for more than half a century, and some few of our old-fashioned housekeepers have the original receipt, and occasionally make the article and give it to their neghbours and friends when occasions call for it.

Having some years since come into possession of the receipt, and my wife having manufactured the article from it, it proved to be genuine, and has been very useful; I, therefore communicate it for the Cabinet, that our farmers may have the benefit of a very valuable article at a very small expense; it may be beneficially applied to man or beast, under circumstances requiring such a remedy.

Receipt.—Take of mutton tallow, rosin and beeswax, each one pound, flaxseed oil two gills, thick turpentine (such as exudes from pine trees or boards) four ounces. Melt the rosin and beeswax together first, and stir them well till thoroughly dissolved and incorporated: Then put in the other ingredients and keep *constantly* stirring the whole together over a slow fire till they are all melted and well incorporated; then remove it from the fire and continue *stirring* the whole mass till it is *cold*, otherwise the ingredients will separate and spoil the article. It may now be put by for use as it will keep for any length of time.

The proportions of the ingredients as above stated, are such as to make the salve of a proper consistence, which is of much importance, any material deviation may cause it to be too hard or too soft for beneficial use. The old women say that when it is applied with the intention of *drawing*, as it is termed, it should be spread thick; but when it is intended to heal the wound and not to *draw*, it should be spread thin. I give this information for what it is worth, not pretending to any special knowledge on the subject. R.

NOTICES, &c.

We hereby inform the public that Mr. Francis C. Wilson, our late carrier and agent in this city, and who travelled for us to some extent in Delaware and Maryland, is no longer authorized to transact business for the office of the Farmers' Cabinet. We are the more particular in giving this notice, as we have received information that Mr. Wilson is engaged in circulating a work similar in *appearance* and *character* to our own, and we wish our friends distinctly to understand, that the *new Cabinet* is not their old friend the Farmers' Cabinet.

Our New Jersey agent, Mr. John R. Post, will oblige us by informing us how a letter should be directed to be received by him.

Union of the Cultivator and Genessee Farmer.—We have received the first number of vol. vii. of this ever welcome periodical, being the first number of the consolidated paper, to be edited by Willis Gaylord and Luther Tucker, Esquires. We congratulate the patrons of the Cultivator that the place of the late Editor is thus so *soon* and *well* supplied. We are also gratified to learn that the subscribers to the new paper are to be presented with an engraved portrait of its late Editor, Judge Buel, which we have no doubt will be cherished by thousands as a valuable remembrancer of departed worth. The portrait is to be accompanied by the "*Horticulturist's Coat-of-Arms*," devised by A. Walsh, Esq., of Lansinburg, and exhibited at the Fair at Niblo's Garden, New York, in October last. The impressions are to be from a wood cut of large size, and the two will constitute a liberal present to the subscribers.

Maine Farmer.—No. 1, vol. viii. of this work is before us. We are happy to learn from the address at the commencement of a new volume, that friend Holmes is encouraged to persevere from the success and experience of the past. May his labours in the cause of agriculture be continued until his *high hopes* shall be realized, of seeing *our native state* "a model of improvement, enterprise and virtue."

We omit the usual account of the markets this week for the want of room.

To Our City Subscribers.

We are preparing bills to present to our city subscribers in a few days by the carrier, which we have no doubt will be met by them with their usual promptitude. Some of them have already called at the office, and paid up their subscriptions to the close of Vol. IV. for which they have our thanks, and should any mistakes occur in presenting bills, they will of course be cheerfully corrected.

The quantity of rain and melted snow which fell during the 12th month, 1839, was..... 6.26 inches.

The quantity which fell during the previous 11 months was..... 37.44

Whole quantity for 1839..... 43.70 inches.

1st mo. 1, 1840. Chs. Roberts.

The co-partnership heretofore existing between the subscribers, under the firm of PROUTY, LIBBY & PROUTY, is by mutual consent dissolved; John Libby is authorized to settle all business relating to the publication of the Farmers' Cabinet and Ladies' Garland. David O. Prouty is authorized to settle the affairs of the Agricultural Warehouse and Seed Store.

DAVID PROUTY, by his Attorney,
L. PROUTY,
JOHN LIBBY,
DAVID O. PROUTY.

Philadelphia, Jan. 14, 1840.

Agricultural Warehouse and Seed Store.

No. 87 North Second street Philadelphia.

Seed Sowers, a variety, adapted to garden and field sowing. These machines are simple in their construction, and effectual in their operation.

Pruning Knives and Shears, a good variety.

Grass Knives and Sheers, several kinds.

Improved Corn Sheller. This is the "ne plus ultra" machine of its kind.

Sheep Shears, among which can be found a very superior article.

Garden and Hay Rakes, by the dozen or single.

Scythes and Sneeds, patent and common, from the best manufactories in New England and Pennsylvania.

Patent Guillotine Straw Cutter, a cheap, expeditious, and durable machine.

Field and Garden Cultivators. The latter is a prime implement for working the Sugar Beet, Ruta Baga, Multicaulis, etc.

A great assortment of fresh field, garden and flower Seeds of the growth of 1839.

Gentlemen are respectfully invited to call and examine for themselves.

DAVID O. PROUTY.

THE FARMERS' CABINET,

A monthly newspaper, is published by

JOHN LIBBY, No. 87 NORTH SECOND STREET, PHILADELPHIA,

For the Proprietors.

PETER B. PORTER, No. 97 MARKET STREET, WILMINGTON, DEL.

The Cabinet is published on or about the fifteenth of every month. Each number will contain thirty-two octavo pages, on good paper and fair type. The subjects will be illustrated by engravings on wood whenever they can be appropriately introduced. Terms.—*One dollar per year, payable in advance.* The Cabinet, by the decision of the Post Master General, is subject only to *newspaper postage*; that is, one cent on each number within the state, and within one hundred miles of the place of publication, out of the state,—one cent and a half on each number to any other part of the United States. ☞ Seven copies for five dollars. All subscribers must commence with the volume, No. 1 or with the half volume, No. 7.

From the Steam Press of J. Van Court, Printer, corner of Bread and Quarry sts., rear of 96 North Second.

Devoted

Vol. IV.—N

(Con

THE imp
now applied
to its habits
stances to d
plant produ
tendency m
seed from
clay soils.
from the N
South to th
good conse
preserved f
will keep
years, it wi
the object i
taken to h
roots, and
tunity of c
ing at an
the subject
produce th
of their r
American
we have n
where the
Some Fre
year, beet
and repea
clover can
could gro
would be
the crop—
we are
beets two
clover the
is mentio
cess, for
CAB.—